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EDITORIAL: THE RELUCTANT CRITIC

art: Frank Kelly Freas

Writers rarely agree on anything about their craft, but they do tend to join forces against the critic. I am far too gentle a soul myself to say nasty things about people, but here is what I managed to say in a book of mine called *Familiar Poems Annotated* while talking about Robert Frost:

"His poetry seems to please the critics, and because it is plain-spoken, rhymes and scans, it pleases human beings as well."

Here's what Lord Byron says: "As soon / Seek roses in December—ice in June; / Hope constancy in wind, or corn in chaff; / Believe a woman or an epitaph, / Or any other thing that's false, before / You trust in critics."

Coleridge's opinion is this: "Reviewers are usually people who would have been poets, historians, biographers, etc., if they could; they have tried their talents at one or at the other, and have failed; therefore they turn critics."

And Lawrence Sterne's: "Of all the cants which are canted in this canting world—though the cant of hypocrites may be the worst—the cant of criticism is the most tormenting!"

Enough! You get my point!

And yet—every once in a while—I find myself trapped—forced to the wall—driven into the ground—and very much against my will—

I am forced to be a critic!

Science Digest asked me to see the movie *Close Encounters of the Third Kind* and write an article for them on the science it contained. I saw the picture and was appalled. I remained appalled even after a doctor's examination had assured me that no internal organs had been shaken loose by its ridiculous sound-waves. (If you can't be good, be loud, some say, and *Close Encounters* was very loud.)

To begin with there was no accurate science in it, not a trace; and I said so in the article I wrote and which *Science Digest* pub-



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lished. There was also no logic in it, not a trace; and I said that, too.

Mind you, I'm not one of these purists who see nothing good in anything Hollywood does. Hollywood must deal with large audiences, most of whom are utterly unfamiliar with good science fiction. It has to bend to them, meet them at least half-way. Fully appreciating that, I could enjoy *Planet of the Apes* and *Star Wars*.

Even when my good friends, Ben Bova and Harlan Ellison, denounced the latter unstintingly, I remained firm. *Star Wars* was entertainment for the masses and did not try to be anything more. Leave your sophistication at the door, get into the spirit, and you can have a fun ride.

Close Encounters, however, took itself seriously or put on a show of doing so. It was *pretentious*, and that was fatal. What's more, it made its play for ufolators and mystics, and—in its chase for the buck—did not scruple to violate every canon of good sense and internal consistency.

I said all this in my article and then the letters came.

Some of them complained that I had ignored the virtues of the picture. "What about the special effects?" they asked. (They were referring to the flying chandelier at the end.)

Well, what about them? Seeing a rotten picture for the special effects is like eating a tough steak for the smothered onions, or reading a bad book for the dirty parts. Optical wizardry is something a movie can do that a book can't but it is no substitute for a story, for logic, for meaning. It is ornamentation, not substance. In fact, whenever a science fiction picture is praised over-effusively for its special effects, I *know* it's a bad picture. Is that all they can find to talk about?

Some of those who wrote me were hurt and appalled that anyone as obviously good-natured as I could possibly say such nasty things. I did rather bite my lips at that; it's no fun to force one's self into the twisted semblance of a critic. Yet there comes a time when one has to put oneself firmly on the side of Good.

Some asked me angrily who I thought I was and what made *me* a judge of science fiction anyway. They had seen every science fiction movie made in the last five years and they knew a lot more about science fiction than I did. —Well, maybe they did; I didn't argue the point.

And one and all, they came down to the same plaintive cry, "Why do you criticize its lack of science, Dr. Asimov? It's just science fiction."

God, how that stings! I've spent a lifetime loving science fiction, and now I find that you must expect nothing of something that's just science fiction.

It's just science fiction so it's allowed to be silly, and childish, and stupid. It's just science fiction so it doesn't have to make sense. It's just science fiction, so you must ask nothing more of it than loud noise and flashing lights.

That's the harm of *Close Encounters*: that it convinces tens of millions that that's what just science fiction is.

My favorite letter, though, came from someone whose name was familiar to me. He had written me on a number of earlier occasions and I quickly learned never to answer. He has ideas on every possible scientific subject; and in every single case he is wrong, calamitously wrong, mastodonically wrong. He is an unappreciated national treasure, for he is so unanimously wrong that by taking the direct opposite of his views you will be more often right than if you listened to the wisest sage.

His Erroneousness took issue with my comment that the aliens in *Close Encounters* acted with utter illogic (and I had cited a number of instances). They're *aliens*, he said, explaining it to me

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carefully so that I would understand. They're *supposed* to be illogical.

Well, then, I suppose all you need are illogical writers, writers who never heard of logic. Illogic would come so naturally to them that they would have no trouble portraying aliens.

It was a well-rounded incomprehension totally worthy of my correspondent.

John Campbell once issued the challenge: "Show me an alien thinking as well as a man, but not *like* a man."

Easy? I've tried many a hard thing in my science fiction career, but I've never had the nerve to tackle that one (except maybe a little in the second part of *The Gods Themselves*). Stanley Weinbaum managed a bit of it in the case of Tweerl in "A Martian Odyssey." Olaf Stapledon managed a bit of it in the case of John in "Odd John."

Do you suppose that those fellows who put together the screenplay of *Close Encounters* could do it by just pushing in some of their own native illogic?

Let me give you an example of what I mean in the other direction.

Suppose you wanted to portray an amiable nitwit, a pleasant simp with about as much brains as you can pack into a thimble. And suppose you want him to be the first-person narrator. Do you suppose you can find yourself an amiable nitwit or a pleasant simp and have him write the book? After all, he is one; whatever he writes is what an amiable nitwit or a pleasant simp would say.

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Let me point, then, to P. G. Wodehouse's books about Bertie Wooster and Jeeves. Bertie Wooster tells the story and with every line reveals himself to be an amiable nitwit, a pleasant simp. But those books are perfectly written by someone who is nothing of the sort. It takes damned clever writing to have someone betray himself as a silly ass in every line and yet do it so smoothly you never ask yourself, "How is it that that silly ass is telling the story so well?"

Or to come closer to home, consider Daniel Keyes's "Flowers for Algernon" in which the narrator begins a moron, becomes brighter and brighter, then duller and duller, and ends as a moron. The moron-parts were clearly the hardest to write, for Keyes had to make Charly *sound* like a moron without making the story sound moronic. If it were easy, the best way to do it would be to have a moron write it.

So *Close Encounters* has its uses, too. It is a marvelous demonstration of what happens when the workings of extra-terrestrial intelligence are handled without a trace of skill. It makes one feel added wonder and awe at stories in which extra-terrestrial intelligence and other subtleties are handled with painstaking skill—as in those we try to find for this magazine.

And, speaking of this magazine, I am happy to announce that, beginning with the next issue, we will be on a monthly schedule.

—Isaac Asimov

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ON BOOKS

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- Strange Wine* by Harlan Ellison: Harper & Row, 1978, 262pp, \$9.95.
- The Redward Edward Papers* by Avram Davidson: Doubleday, 1978, 208pp, \$7.95.
- Still I Persist In Wondering* by Edgar Pangborn: Dell, 1978, \$1.75 (paper).
- Year's Finest Fantasy #1* edited by Terry Carr: Berkley/Putnam, 1978, 262pp, \$8.95 cloth, \$1.95 (paper).
- Best Science Fiction Stories of the Year: Seventh Annual Collection* edited by Gardner Dozois: Dutton, 1978, \$8.95.
- Index to Science Fiction Anthologies and Collections* by William Contento: G. K. Hall, 1978, 608pp, \$28.00.
- A History of the Hugo, Nebula, and International Fantasy Awards* by Donald Franson and Howard DeVore: Misfit Press, 1978, 112pp, \$3.00 (paper).
- The Hills of Faraway: A Guide to Fantasy* by Diana Waggoner: Atheneum, 1978, 326pp, \$16.95, illustrated.
- The Way the Future Was: A Memoir* by Frederik Pohl: Del Rey, 1978, 320pp, \$8.95, photographs.
- The Night Face and Other Stories* by Poul Anderson: Gregg, 1978, 221pp, \$9.95.
- The Byworlder* by Poul Anderson: Gregg, 1978, 160pp, \$8.50.
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- Confessions of a Crap Artist* by Philip K. Dick: Entwhistle, 1978, 171pp, \$3.95 (paper).
- Red Shadows* by Robert E. Howard: Grant, 1978, 337pp, \$20.00, illustrated.

Short story collections are much harder than novels to review unless the space (and time!) is available to discuss each story individually. There are also criteria to consider other than just the stories. For instance: *Strange Wine* by Harlan Ellison is a collection of fifteen stories of varying quality. I loved some of them, hated others, and was indifferent to some. I expect to reread this collection in a few years with the same mixed feelings, but the stories I'll love or hate will be different. Harlan Ellison has claimed, quite rightly I think, that he is not a science fiction writer although he frequently uses the trappings. Good science fiction usually gives me an intellectual excitement while a successful Ellison story usually involves me emotionally. I say "usually" because both reactions are nearly always present, but in varying degrees. My reactions to an Ellison story depend heavily on my own feelings, thoughts, and past emotional experiences, and these things change daily. If *Strange Wine* was just a collection of stories, I'd give it a mixed review, but there's a lot more. None of these stories have appeared in an Ellison collection before; the introductions to each story, besides furnishing background, tell us a lot of interesting things about the author; the introduction to the book, a tirade against television, does the same; and finally, from the imaginative use of grey paper and well-designed titles and type, to the full color photograph of Ellison on the back flap, it's a wonderful artifact just to look at. Buy it.

Avram Davidson is one of the finest short story writers in the English language, and a new Davidson collection should bring cheers from millions. Unfortunately, Avram Davidson is also very much underrated, so those of us who know better will just have to yell louder. His new collection, *The Redward Edward Papers*, edited by Michael Kurland, is doubly welcome because the title story, which fills half the book, has never appeared before. Like most Davidson stories, it is charming, witty, and urbane, with just the right touch of maniacal whimsy. I'd call Avram Davidson the heir to John Collier except that Collier is still with us, although inactive as a writer. The other five stories in the book are even better. "Sacheverell" and "The Lord of Central Park" are wonderful, and the portrait of a well-known radio personality in "The Grantha Sighting" is devastatingly funny. "The Singular Events . . ." and "Dagon" would stand out in any anthology. As a story collection, *The Redward Edward Papers* is excellent; but I should warn you that the afterwords by the author don't add

much, the introductory material by Michael Kurland and Randall Garrett are fillers, and the packaging is the usual hideous Doubleday botch. Buy it anyway, and, if you can find them, get Davidson's two earlier collections, *Or All the Seas with Oysters* and *Strange Seas and Shores*. You won't be disappointed.

It's rare for me to find two short story collections to rave about in a single month, but this time I have three. When Edgar Pangborn died suddenly in 1975, he was writing a series of novelettes and novellas set in the same background as his classic novel, *Davy*. I've been waiting for a collection ever since, and in *Still I Persist in Wondering*, part of it is finally here. The book contains seven stories all from original anthologies. There are still more unreprinted pieces of the series. Pangborn put this collection together just before he died, wrote a forward, and slightly revised the stories. Dell has added an appreciative introduction by Spider Robinson and a bibliography (not seen). If Ellison's forte is emotion, and Davidson's whimsy, then Pangborn can be considered the master of empathy. It's impossible not to like or love a Pangborn character despite his or her obvious flaws. Damon Knight, in a review of Pangborn's finest novel, *A Mirror for Observers*, described his writing as "very like the thing that Stapledon was always talking about and never quite managing to convey: the regretful, ironic, sorrowful, deeply joyous—and purblind—love of the world and all in it."

Terry Carr has added a yearly fantasy anthology to the "Best of the Year" sweepstakes. *Year's Finest Fantasy #1* is an auspicious start for the series. It starts off with Harlan Ellison's Nebula winning (and Hugo nominated) trip through nostalgia, "Jeffty is Five," continues with Jack Vance's latest adventure of Cugel the Clever, "The Bagful of Dreams," and finishes with Robert Aickman's excellent "Growing Boys." In between, there are seven other stories, including Woody Allen's hilarious "The Kugelmass Episode," and a very good story by unknown author T. Coraghessan Boyle, "Descent of Man." I only disliked two of the ten stories—and you may even like those.

Best Science Fiction Stories of the Year: Seventh Annual Collection, edited by Gardner Dozois, opens with a Nebula winner, "The Screwfly Solution" by Raccoona Sheldon (James Tiptree Jr.), and ends with another Nebula winner, "Stardance" by Spider and Jeanne Robinson. Both are also Hugo nominees. The six other stories include one other Hugo-nominated story (and my favorite in the anthology), "In the Hall of the Martian Kings" by John

Varley, the Nebula nominee, "Particle Theory" by Edward Bryant, and two very good novelettes, "Bitterblooms" by George R. R. Martin and "The House of the Compassionate Sharers" by Michael Bishop. It's another fine anthology. My only complaint is personal; the introduction is obviously written with a file of *Locus* on hand, but is unacknowledged. Lester del Rey, when he did the series, gave *Locus* a plug every year. Gardner?

If you have a large collection of books of short fiction, or want to collect some specific author's work, or want to amaze your friends with knowledge, William Contento's *Index to Science Fiction Anthologies and Collections* is the reference book for you. It takes the contents of over 2,000 science fiction short story collections and anthologies, and indexes them by author, title, and book. It also tells you the original magazine appearance and doesn't miss much through 1977 except, oddly enough, for a couple of obscure anthologies I edited myself. Is there a conspiracy going on? Anyway, this huge volume supercedes all other anthology indices and should be the basic index of its sort for the next decade at least. It's indispensable for a collector or anthologist. You probably won't find it in any but the largest specialized bookstores, so plan to order it directly from G. K. Hall, 70 Lincoln St., Boston MA 02111.

The request I get most as a science fiction "expert" is for a list of Hugo and Nebula winners. I always recommend that the reader buy a copy of *A History of the Hugo, Nebula, and International Fantasy Awards* edited by Don Franson and Howard DeVore. It lists all winners, nominees, and has some fascinating facts and figures as well. The 1978 edition is now available from Howard DeVore, 4705 Weddel St., Dearborn MI 48125 for the modest price of \$3.00.

The Hills of Faraway: A Guide to Fantasy by Diana Waggoner is a discussion and bibliography of fantasy work with some very opinionated descriptions of each book. It's more of a survey than an exhaustive attempt, but should become the standard reference work on the subject until eventually superceded. As I worked my way through the descriptive bibliography, I took notes on books I'd like to read or reread. You can do the same.

Frederik Pohl's autobiography, *The Way the Future Was*, is a nostalgic trip through the science fiction world of 1930 to 1970. It's a pleasant book, but oddly reticent for an autobiography. Maybe Pohl really doesn't dislike anybody, maybe his rose-colored glasses are slightly out of focus and have taken the hard edges off

everything, or maybe it's not Pohl's fault but mine for being too familiar with most of the material. In any case, it's a well-written love letter to science fiction readers and writers by a man who has been at the center of it all as fan, writer, agent, and editor. I loved it all, but wish there were more.

Gregg Press, under the editorship of David Hartwell, has been doing a marvelous job of reprinting in hardcover some of the best science fiction of the last twenty-five years. Their sturdy library editions on acid-free paper with real cloth bindings and clear texts are a pleasure to read and own in this age of usually shoddy production. Their latest offering, a seven-volume set titled *The Worlds of Poul Anderson*, is excellent. There are three outstanding collections; *The Queen of Air and Darkness* (1973), *The Horn of Time* (1968), and *The Night Face and Other Stories*, an original collection of the last four stories in Anderson's future history series. The novels reprinted are *Orbit Unlimited* (1961), *The Byworlder* (1971), and *The Long Way Home* (1955) (aka *No World of Their Own*). The seventh volume, *Two Worlds*, contains two short novels, *Question and Answer* (1954) (aka *Planet of No Return*) and *World Without Stars* (1966) (aka *The Ancient Gods*). All support my thesis that Anderson has never written a bad story. All seven volumes have new introductions by Anderson and the set is available at a special price of \$56.00 + \$3.50 postage from Gregg Press, 70 Lincoln St., Boston MA 02111.

Philip K. Dick's fascinating non-SF novel *Confessions of a Crap Artist* is available again for \$3.95 from Entwhistle Books, Box 611, Glen Ellen CA 95442. If you like Dick's weird humorous writing, you'll love this.

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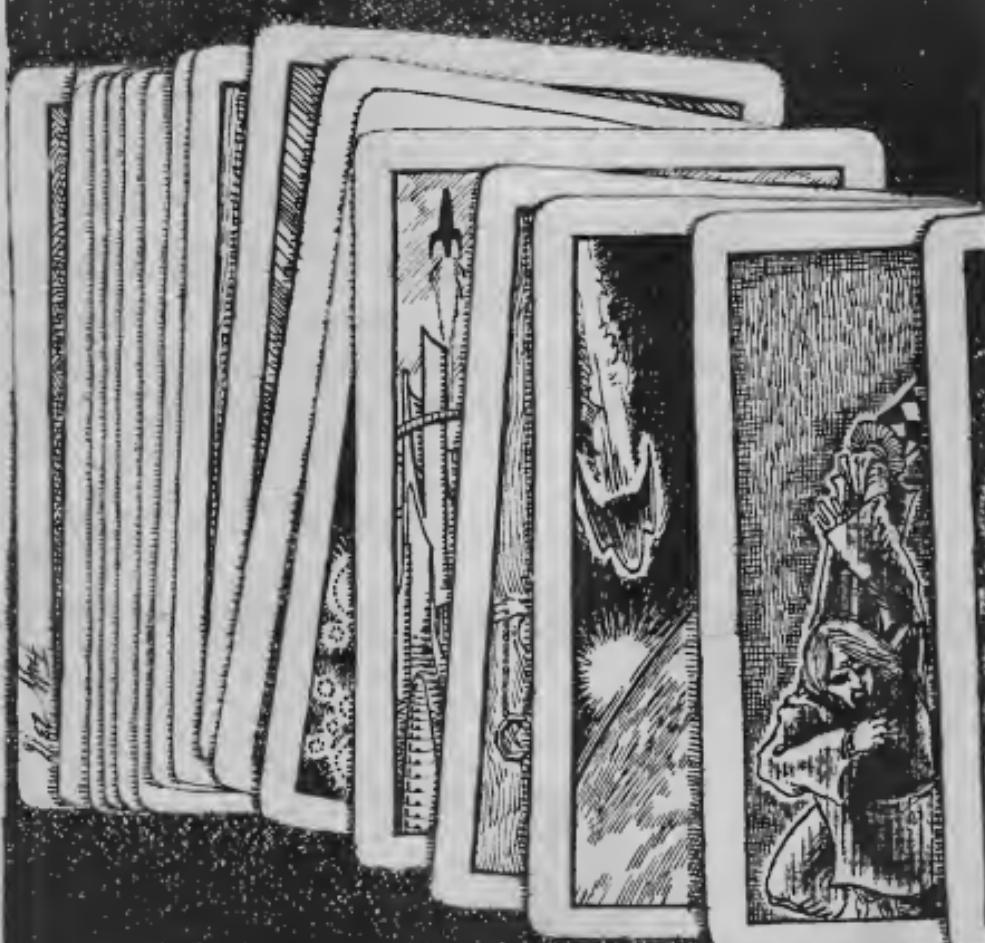
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THE TRYOUTS

by Barry B. Longyear

art: Freff





Mr. Longyear once edited an underground magazine, followed by ghostwriting and running a printing company. Now thirty-five, he lives in Maine, with the world's most understanding woman, his wife, and writes. This story is his first science fiction sale.

The stranger sat crosslegged on the sand, staring at the vent from which the natural fire of the planet Momus illuminated the small wayside depression on the road to Tarzak. His black hood was pulled forward, leaving only twin dancing flames reflected from unblinking eyes as evidence of a face. As a light breeze rose from the desert, bringing the heavy smell of sulphur from the fire, a portly figure dressed in grey robe and apron stepped between the rocks into the firelight. He raised his hand and motioned toward a place near the flames.

"The fire is free," answered the black-hooded stranger. The newcomer squatted next to the flames, pulled a wad of dough from his pack and placed it on a rock close to the fire. In moments the sweet smell of cobit bread drove the odor of sulphur from the depression.

"Care you for some cobit, stranger?"

"For half, two movills. No more."

"Two? Why, it would distress me no more to hand out my bread for nothing."

"In which case, I would gladly take all."

"Three."

"Two."

The man in grey broke the cobit and handed half to the black-robed stranger, who handed back two copper beads. The bargaining hadn't been in earnest; only enough to satisfy custom. Finishing his cobit first, the one in grey tapped himself on his chest. "I am Aarel the mason. Have you news?" Aarel jingled his money pouch. The one in black shook his head. "But, you wear the newsteller's black."

"True, Aarel, but I apprentice only. However, my master will be along directly."

"What fortune! A master newsteller at the fire! Is he known?"

"No."

Aarel shrugged. "I am not one to discourage youth. Is this his first news?"

"No, but only small ones until now. His news tonight will play Tarzak, he thinks."

Aarel raised an eyebrow. "Tarzak? I hope his is the enthusiasm of experience rather than youth."

"My very words, Aarel."

They sat in silence watching the flames until two other men, wearing the tan robes of merchants, entered the circle of firelight.

"Ho, Aarel!" called the taller of the two.

"Parak," the mason answered; then, nodding at Parak's companion, "Jum."

Parak pointed at the fire. "It costs nothing; join us," said Aarel.

The merchants squatted close to the flames, each placing wads of cobit dough on the hot rocks. After some social bargaining and exchange, the four travelers sat munching cobit. Parak produced a wine flask, they bargained further, then passed around the flask while Parak pocketed his movills.

"It has been a weary trek from the Deeplands." He cocked his head toward the black-robed stranger and asked Aarel, "Has he news?"

"His master has news he believes will play Tarzak, and he should be here soon."

"Tarzak, eh?" Parak rubbed his hands together in anticipation. "Has the apprentice introduced it?"

"No."

At that moment they all turned to see another black-hooded figure enter the firelight and gesture toward the flames. "No copper for the flames, newsteller," said Parak. "Are you the master of this apprentice?"

"Yes. I am Boosthit of the Farransetti newstellers." Boosthit seated himself by the flames and cooked cobit, which, after rapid and impatient bargaining, was quickly gulped by the eager travelers. The master newsteller finished his cobit and brushed the crumbs from his robe. Turning to the travelers, he asked "Is news to your liking tonight?"

Aarel squinted and tossed his purse in the air and caught it. "I can meet a good price for good news, Boosthit. But, I admit, your name is unfamiliar to me. We get few Farransetti this way."

"I agree," said Parak. "Could you tell us a little about it to enable us to judge the fairness of your price?"

Boosthit held up his hand, palm outward, and shook his head. "The Farransetti do not introduce."

"Why so?" asked Jum.

"We believe small glimpses of the whole are devoid of the grace of logical construction."

Aarel shrugged and held up his palms. "How, then, do we judge the price?"

"What would you pay for excellent news?" The mason and the two merchants thought deeply.

"Twenty movills," answered Aarel, "but only for excellent news."

"I would pay twenty-five," said Parak. "That is a fair price in Tarzak for excellent."

"I agree," said Jum, "twenty-five."

Aarel wagged a finger at the merchants. "But, friends, we are not in Tarzak. Do we not deserve credit for trudging out here on the road to hear Boosthit's news?"

Parak smiled. "You are a bandit, Aarel. The newsteller has trudged just as far to tell us the news, and we would be on the road in any event."

Aarel shrugged. "Very well; twenty-five movills."

Boosthit nodded. "Hear me then. I will give my news at that price in advance, but no money back."

"But, what if . . . ?"

"I must finish my offer, Aarel. Twenty-five movills apiece in advance, or hold onto your coppers and pay me double that price at the conclusion of my news if you judge it to be excellent."

Aarel's mouth opened in amazement. "It is an honor to meet a newsteller capable of making such an offer." Parak and Jum nodded in agreement. "We will hold our coppers."

Boosthit arranged his robe, closed his eyes and began. "This news is of Lord Ashly Allenby, special ambassador to Momus from the Ninth Quadrant Federation of Habitable Planets. His mission: one of grave importance to his government, and to the people of Momus. His journey: one of great heroics and high comedy."

"A peculiar opening," said Aarel, "but it captures the attention. The hint of serious events relating to Momus is the true hook, am I correct?"

"I agree, Aarel," said Parak, "and what could it be that interests the Federation in Momus? We have no trade for them, and we refuse to serve them. What could Lord Allenby's mission be? Jum?"

"It is the promise of comedy that intrigues me, but, nonetheless, the opening captures the attention. I had heard the Farransetti

were experimenting with openings devoid of prayers and tributes, and many think this radical. But, having heard such an opening tonight, I approve."

Boosthit waited a moment, then continued. "On Earth, the ancient parent planet, high within the tall, gleaming spires of the Federation complex, Lord Allenby was called to meet with the Council of Seven.

"'Allenby,' said the council president, 'you are made special ambassador to Momus, with all of the rights and privileges of an ambassador of the first rank.'

"I am most honored," replied Allenby. Lord Allenby stood fair tall as he accepted his charge, his pleasant features composed and dignified, his uniform uncluttered and tasteful."

Jum held up a hand. "Boosthit, is that the extent of the hero's description?"

"Yes."

Aarel scratched his chin. "We are used to lengthier descriptions. Is there a reason for this brevity?"

"Perhaps," Parak interrupted, "it is to let us fill in the description ourselves. Would a mistaken image affect the truth of your news, Boosthit?"

"No."

Aarel frowned. "That is radical, no doubt." He closed his eyes. "But, I can see an image. Yes, I can see him."

"And I," said Jum.

"And I," said Parak.

Boosthit cleared his throat. "Allenby was confused, since a planet of Momus's stature hardly rates an ambassador of the first rank." Aarel, Parak and Jum nodded.

"This is true," said Parak. "What could the Council of Seven have in mind to make such an appointment?" Aarel and Jum shook their heads.

"Allenby asked the reason for this," continued Boosthit, "and this is the president's answer: 'Momus lies just upon the boundary of the Ninth and Tenth quadrants. In actuality, it is closer to the main population centers of the Tenth than it is to ours. We have learned that the Tenth Quadrant Federation plans to occupy Momus to use as a forward base from which to launch their invasion of the entire Ninth Quadrant.'"

Aarel, Parak, and Jum gasped.

"But Momus has no defense against a military force," said Parak.

"This is grave indeed." said Aarel.

"But," said Jum, "what, then, could the mission be?"

"Lord Allenby asked this question, also." said Boosthit. "The president told Allenby that his mission was to establish relations between the Ninth Federation and Momus for the purpose of mutual defense against the coming invasion."

"A worthy mission," remarked Aarel. "I think sufficient to motivate the hero. What do you say Parak?"

"It would appear so. Do you agree Jum?"

Jum rubbed the bridge of his nose. "Allenby is only told of the threat. In the actuality, not the telling, is the real threat, and, therefore, sufficient motivation. I shall reserve judgement."

Boosthit waited until it was silent enough to hear the hissing of the flames. "Lord Allenby could not prepare for his mission; there was no time. He had to make all possible speed to Momus to warn us of the threat, which was difficult since there are no regular routes to Momus. A Federation cruiser brought Allenby as far as the Capella system, but had to turn back because of power problems. Stranded on Capella's fifth planet, awaiting passage on a freighter reported to be heading in this direction, Lord Allenby's baggage was stolen, as well as his money and his Federation transportation pass."

Aarel shook his head. "All he could do, then, would be to wait for the return of the Federation cruiser, is this not true?"

"It would appear so," answered Parak. "A sad day for Momus, except there's something wrong. Jum?"

"Indeed there is, Parak. Such news would be pointless and futile. No newsteller, Faransetti or otherwise, would bother with such a tale, much less inflict us with it. Perhaps the hero is made of stern stuff and will complete his mission?"

"But how?" Parak shook his head. "He cannot travel without money or his pass."

Boosthit smiled. "Lord Allenby, not the kind to be defeated by chance circumstance, set himself the task of continuing his journey. At the Federation consulate, he demanded transportation; but the consul, in turn, required verification of Allenby's mission before he would authorize the release of a ship or money. Allenby was furious, since it would take many weeks for verification to come from Earth; but the consul was within his

rights and could not be swayed.

"Allenby haunted the spaceport, the consulate and even exporting establishments trying to get transportation, but was unsuccessful until he caught wind of an opening on a freighter for a cargo handler. Selling his uniform and medals, he purchased ordinary clothing and secured able-bodied spacer papers from the Federation consulate. Then he signed on with the *Starwind*, which was scheduled to pass near Momus on its way to trade with the Tenth Quadrant."

"I think I see his plan," said Aarel. "It is daring, but it is also dishonest."

Parak shook his head. "The mission outweighs the act, Aarel. Besides, the Federation would pay for the stolen lifeboat, would it not?"

"Perhaps. What say you, Jum?"

"I will relent on the motivation; I think it is sufficient."

Boosthit leaned toward the fire, spreading his arms. "As you guessed, Lord Allenby took a lifeboat from the freighter as it passed abreast of Momus, but the range was not ideal. After covering the distance, establishing an orbit for pickup was out of the question. He decided to break atmosphere and go for a hard landing as soon as he arrived. To do otherwise would cost both his life and the mission, as he was low on air."

"He had hoped to assume manual control after achieving flight, in order to put down near a large city, but he lost consciousness before reaching our outer atmosphere. As chance would have it, however, the boat's automatic system put Allenby down near Kuumic on the edge of the Great Desert. He wandered the desert for two days until he chanced to meet Garok the cobit gatherer."

"Hah!" Aarel exclaimed. "I know Garok—the thief."

"I have heard of him," said Parak. "A spirited bargainer, Garok."

"Allenby said to Garok, 'Say, fellow, can you point me in the direction of Tarzak?'" Boosthit smiled and suppressed a chuckle. "Garok tapped his purse and said, 'what is this information worth to you, stranger?'

"Allenby, coming from a rich world where such information is as free as the fire, was very confused. 'You demand payment for such a thing? Absurd!'

"Garok began walking away, but thinking better of it, came back and explained. 'What I say now, stranger, has no value to me and I let you have it for free. I know where Tarzak lies, and

you do not.'

" 'So much,' said Allenby, 'could be deduced from my question.'

" 'That's why it is of no value. But, the direction of Tarzak is of value to you, is it not?'

" 'Of course.'

" 'Then, it is of value to me.' Again, Garok tapped his purse. Lord Allenby had little left over from the sale of his uniform, and he felt in his pocket for the scraps of paper they use for money."

Aarel grabbed his ribs and laughed until he gasped for air. Parak and Jum shook their heads and chuckled.

"Allenby held out one of the scraps at Garok, who took it and examined it closely. 'What is this?'

" 'Money. That's what you wanted, isn't it?'

"Garok handed the scrap back, and said, 'Stranger, how long have you been in the desert? The paper itself might have a value, except for its being covered with ink.' Garok opened his purse and brought forth a single movill. 'This is money, stranger.'

" 'Well, then, fellow, where can I get my money converted into yours?' Garok tapped his purse. Allenby was perplexed. 'You would charge for that information, too?'

" 'Is the information of value?'

" 'Yes, but . . .' Garok kept tapping his purse. As he turned to leave, Allenby had one remaining try. 'Tell me, fellow, would you accept something of value in exchange for the information?'

" 'Barter?'

" 'Yes.'

"Garok rubbed his chin, then fingered a fold of Lord Allenby's utility suit. 'This would do.'

"Allenby was outraged. 'Not that! I landed here in a ship's lifeboat. Would that have value to you?' And, Garok was interested. The boat's fuel and supplies were exhausted, and the ship itself was inoperable, but the furnishings were intact as well as the wiring and other materials. Garok made an offer of one hundred movills, and Allenby accepted."

Aarel snorted. "I said Garok was a thief; I wouldn't have parted with it for less than four hundred. Parak?"

"I was thinking the same thing, although my price would have been higher. Jum, does this make our hero a fool?"

"I think not. The boat had served its purpose and no longer had any value to Lord Allenby. Besides, if I was stuck in Kuumic and didn't know the direction to Tarzak, I might have even taken a lesser amount."

Aarel and Parak pondered Jum's remarks, then nodded.

"Garok counted out a hundred movills," continued Boosthit, "and handed them to Allenby. Allenby took two of the coppers and handed them back to Garok. 'Now, can you tell me the way to Tarzak?' Garok pointed the direction and reached into his own purse to pay for Allenby's information concerning the location of the lifeboat.

"Where is the lifeboat, stranger?" Allenby didn't notice Garok's hand in his purse, and he truthfully pointed the way to the lifeboat. Garok assumed, since no payment was demanded, that the information was worthless. Therefore, he turned in the opposite direction and struck out to find and take possession of his new purchase. It is said that Garok still wanders Momus looking for his lifeboat, and if he maintains his direction, he will eventually find it."

"No more, Boosthit," gasped Aarel. Parak and Jum rolled in the sand laughing. "No more! Let us rest!"

After more cobit and wine, Aarel rose to present and resolve a complicated stonecutting problem in pantomime, followed by Parak's mummary of a wedding ceremony he had supplied with gifts at a price that drew admiration from the travelers. Jum recited a comic poem concerning his efforts to marry the daughter of a cheese merchant. Exchanges were made, and silence settled around the fire as they waited expectantly for Boosthit to continue his news.

"Lord Allenby's journey to Tarzak was one of privation and hardship, not knowing that fat cobit roots just under his feet slept, waiting to be milked. Instead, he visited the fires along the road, buying cobit from other travelers, until he ran out of movills."

"Boosthit, had this Allenby no act?" Parak frowned and shook his head. "Had he nothing of value?"

"He had the news of his mission, Parak; but this he kept to himself."

"Why?" asked Aarel.

"Why, indeed," asked Jum.

"It is curious, but it is the custom among Allenby's people to play information of that sort only before governments. He was waiting until reaching Tarzak," Boosthit laughed, "to play it before *our* government!" The travelers laughed and shook their

heads. "Yes, it was not until he hired himself out to a priest as a beast of burden in exchange for cobit and information that he learned Momus has no government."

"A sorry fellow," said Aarel, chuckling.

Parak nodded. "Yes, and can such a character be the hero around which excellent news transpires? I fear for your fee, Boosthit."

Jum held up his hand. "You are too hasty, Parak. Think; would any of us do better, or as well, on ancient Earth, Allenby's planet? As Boosthit said, the information is for no charge, but I have heard that the fire is not! Would we appear any less foolish if someone asked us coppers for fire?"

"But, Jum, is it not part of the diplomat's skill to be versed on where he is sent?"

"Only recall Boosthit's opening, Parak." Jum closed his eyes. "In the second part covering Allenby's trip to Momus: 'Lord Allenby could not prepare for his mission; there was no time.' "

"Ah, yes," said Parak, "I stand corrected."

"And I," agreed Aarel.

Boosthit nodded and smiled. "Allenby carried the priest's pack and paraphernalia, and the priest told him of our freedom. From the priest, and from other travelers along the road, he learned that for Momus as a planet to agree to something, half of each town must petition for a meeting, then half of all the towns must vote and agree, for this is the law.

"Allenby remarked to the priest, 'Momus doesn't have many laws, does it?'

"'Only one,' answered the priest, 'which is our law for making laws. It suffices.'

"Lord Allenby, coming from a planet which has millions of laws, was perplexed. 'If Momus needed a new law,' he asked the priest, 'how would one go about it?'

"To move the people in each town to petition for a meeting, the law must be something the people want. Before they can want it, they must be aware of it."

"Allenby nodded at this wisdom, and said, 'Since I have yet to see so much as a wheeled vehicle in my travels on Momus, I don't suppose the planet sports anything resembling mass broadcasting media.'

Boosthit laughed with the other travelers. "'Ever since the first settlers of Momus were stranded here, we have communicated with art,' said the priest to Allenby. 'It was many, many Earth

years before the skies of Momus saw another starship; and by then we were numerous, satisfied with our lot and with our customs.'

"And mass media, I take it, is not art."

"I suppose it could have been," answered the priest, "except no one knew how to build a radio. In any event, it was not their way."

"Allenby's doubts concerning the success of his mission grew. 'The original settlers of Momus,' he said to the priest, 'what were their occupations?'

"Why, there were many. Acrobats, mimes, storytellers, clowns, razzle-dazzle operators...."

"It was a circus ship?"

"Not just a circus ship," answered the priest, "but O'Hara's Greatest Shows, the finest collection of artists and games in the entire quadrant."

Boostshit allowed the travelers a moment of silent prayer. When they raised their heads, Aarel rubbed his chin and thought deeply. "I do not understand, Boostshit, why the hero needs a new law. It would seem sufficient for the Ninth Federation to occupy Momus itself without fanfare. This would serve their objective, and we would be powerless to stop them."

"And," said Parak, "once Momus learned of the threat from the Tenth Quadrant, we would not object."

"The law does seem unnecessary." Jum concluded.

Boostshit held up his hands. "It is complicated, friends, but I shall explain. There is the Great Law of the Ninth Federation, which is actually a collection of many laws. It decrees that the protection of the federation cannot be extended to a planet that has not asked for it. Because of our one law for making laws, Momus is considered a governed society. If the Ninth Federation occupied Momus without our consent, the Tenth Federation would consider that an invasion, because of *their* laws. This, too, would violate even greater laws that govern all the quadrants...."

Parak held his hands over his ears. "It is clear to me why our ancestors chose to remain on Momus!"

"That is true," Aarel agreed, "Would it not be easier for the Ninth and Tenth Quadrants to change their laws?"

"Impossible." answered Jum. "The objectives of the two quadrants differ. They could not agree. Boostshit, this means that the hero must resolve his mission with the laws that already exist?"

"That is true."

"Which also means he must move the people of Momus to pass another law."

"True, as well, Jum. Allenby asked the priest how this could be done, and the priest told him to wait. 'We will sit at the fire this night, and you shall see how. I have heard a newsteller, Lett of the Dofstaffl, will entertain.'

"That night, Lord Allenby saw the work of his first newsteller. Lett performed well and fattened his purse. Afterward, Allenby asked the priest, 'Is this how the news is communicated?'

"'Yes.'

"'Doesn't it strike you as a trifle inefficient?'

"'Bah! Art is not to be judged by efficiency!'

"'But, what if there were news that should be communicated to all of the people quickly?'

"'You weary me with your endless questions! What kind of news could it be that would be of such immediacy?'

"'I have such news,' answered Allenby, 'would you listen to it?'

The priest took his things from Allenby. 'Stranger,' he said, 'Your price of endless answers to endless questions to carry my things is high enough. But, to sit and listen to a frustrated newsteller? You take me for a fool!' With that, the priest left Allenby by the fire and hurried off into the night."

Aarel looked into the fire and frowned. "I see the hero's problem, Boosthit, for even I would have acted as did the priest. I would not have listened."

"Nor I," said Parak. "Even though he has news of importance, I would not have listened."

Jum rubbed his hands together, then pointed at his fellow travelers. "The hero is the thing of importance here. Lord Allenby, an ambassador of the first rank, is reduced to a beast of burden in an attempt at accomplishing his mission. Will he continue his struggle to bring his news to the people of Momus; or will he be defeated, letting Momus fall to the evil designs of the Tenth Federation?" They turned toward Boosthit and saw that he had pulled his hood over his eyes. Bowing their heads, they moaned softly.

"For three nights, Lord Allenby stayed at the fire, trying to tell his news, meeting with failure with each new group of travelers. After failing on the fourth night, Allenby was defeated. He bartered his wedding ring for a card trick from a wandering magician, and using this he kept himself in movills until he

reached Tarzak, where he planned to find transportation to Earth.

"While awaiting the rare ship that comes to Momus, Allenby purchased two more card tricks and an illusion. With these he paid for his town lodgings, meals and clothing, and began saving for his passage back to Earth. It was during this period that Lord Allenby chanced to hear of Vyson of the Dofstaffl newstellers, playing his news at the Great Square in Tarzak." Boosthit removed the hood from his eyes.

Aarel smiled. "Will the great Vyson inspire Allenby?"

"I heard Vyson play the burning of Tarzak years ago," said Parak. "I was inspired to petition in the town to form the fire company."

"Yes," said Jum, "I heard just an apprentice licensed to repeat Vyson's news, and was inspired to petition for a fire company in my own town of Miira. Yes, that was good news."

"Indeed," said Boosthit, "Allenby was inspired, but not by Vyson's news, which concerned the second eruption of the Arcadia Volcano. What caught Allenby's attention was the number of newstellers and apprentice newstellers among the listeners. After Vyson finished, the newstellers gathered around to bid for licenses to repeat his news. I was among those attempting to get through the listeners in order to bid, when I was stopped by Lord Allenby."

"'Unhand me, trickster,' I said, for he wore the black and scarlet of the magicians. 'I must get to the bidding.' He released me, but try as I might, I could not get close to Vyson before he closed the bidding. Times had not gone well with me and I was desperate for news that I could take on the road. With this opportunity lost, I turned to look for the trickster to vent my anger. I found him standing behind me. 'See what you've done? News that played in Tarzak, but I can't repeat it because you made me miss the bidding.'

"Allenby pointed at the newstellers clustered around Vyson. 'They will repeat Vyson's news?'

"'Of course.'

"'But the people of Tarzak have already heard it.'

"'They won't repeat it in Tarzak, fool. They will take it on the road and play it in other towns. Some newstellers will issue second licenses to unknown and apprentice newstellers. In days, Arcadia's eruption will be all over Momus.'

"'Can't you get one of those second licenses?'



"I admit I was exasperated with this nitwit trickster, and told him so, for even children know there are no coppers in a second license. I am a master newsteller, trickster. I do not second license, nor do I pick up fireside gossip and play it for news. My news must have played Tarzak!"

"News that plays Tarzak will spread, then?"

"Of course. You tire me; go away."

"Allenby stood there a moment, watching the clamor of newstellers running off with their new licenses, then he turned back to me. 'Newsteller,' he said, 'how much would you charge to hear my story—a story that will play Tarzak, if done properly?'

"I laughed, 'Trickster, there are not enough coppers on Momus to entice me to endure your amateur efforts.' He tossed his purse at me, and when I caught it, I could feel the weight of over five hundred movills in it. As I said, I had been on desperate times. 'Very well,' I said, tucking the purse into my belt, 'but be brief.'

"Allenby told me his tale, and it was raw, clumsy and presented in bad order. But, I saw in it the potential for greatness—possibly news that would play Tarzak.

"Can you play this in Tarzak now?" he asked me.

"'Of course not. It must be worked on, polished, and then taken on the road to see how it plays. If we do well on the road, then we may try Tarzak.' Allenby rubbed his eyes, sighed, and nodded.

Aarel, his eyes wide, turned toward the apprentice newsteller. "But, then . . ."

"Yes, friends," said Boosthit, "I would like to present Lord Ashly Allenby, special ambassador to Momus from the Ninth Quadrant Federation of Habitable Planets."

The apprentice stood and pushed the robe back from his face. "Oh, excellent, Boosthit!" Aarel exclaimed.

"Yes, excellent, indeed!" said Parak. Allenby turned to Jum.

"And you?"

"Oh, yes. Excellent; most excellent."

Allenby reached within his newsteller's robe and withdrew an empty sack. "In which case, friends, that will be fifty coppers apiece."

As they trudged through the dark on the road toward Tarzak, Allenby said to Boosthit, "We were judged excellent and brought twice the price. I think we are ready for Tarzak. I don't see why we should play any more fires."

"There are still a few things that need to be worked out, Allenby. Your escape in the lifeboat was too easily guessed. I'll have to rework that."

"Humph!" They walked along in silence for a piece, then Allenby spoke. "Boosthit."

"Yes?"

"Since we will be on the road a bit longer, perhaps there is something we could do about my presentation as a comic character. Don't you think if the news were a little more serious. . . ."

"Bah!" Boosthit strode ahead, raising angry puffs of dust from the road. "Everybody wants to be a critic," he shouted at the night. "Everybody!"

THE ENUMERATORS

By E. E. Roberts



The author has been appearing regularly in Ellery Queen's Mystery Magazine and Alfred Hitchcock's Mystery Magazine, but this is his first SF sale—in the horrid pun department, as it happens. He works in Chicago and lives in the western suburbs, which gives him a lot of time for reading on the train. He has a wife, sons aged 8 and 10, a dog named Corn on the Cob, and a three-foot model of the USS United States (circa 1812) that he's been working on for over a year.

Anxious to avoid the widespread ecological disasters that unrestricted human immigration had precipitated on earlier colonized planets, the Council of Earth Governments, prodded by the Society for the Preservation of Alien Lifeforms and Culture, dispatched a scientific survey expedition to Magnum Brut 74 with a view to determining in advance of declaring the newly discovered planet open for settlement how large—if any—a human population the existing eco-systems could support. Responsibility for conducting a comprehensive census of the indigenous species was assigned to Professor Herman Spatlese and his team of specialists from the World Population Control Center.

The team had already developed a special sensing device capable of identifying and classifying all life forms within a fifty-mile radius, and once the leaders of Magnum Brut's primate population—a gentle people quickly classified by the enumeration team as Neo-humankind—became aware of the survey's purpose they were quick to cooperate. Nevertheless, it wasn't long before the team found itself faced with a seemingly insoluble problem—the Avians. Long the dominant species over a full third of the planet's craggy surface and fiercely jealous of their independence, these large winged creatures strongly resisted any attempt to penetrate their territory, using their hard beaks to smash the delicate sensors and even on occasion snatching team members up in their claws and carrying them off to drop in swamps or other equally unpleasant places. The final straw came when Professor

Spatlese himself, venturing in under a flag of truce, was forced to run the better part of a mile pursued by furiously beating wings and shrill caws. In desperation he called an emergency conference of the senior members of his team.

"There's only one solution," Von Erdbeeren said. He was a short, stubby man with a bullet head and close-cropped iron gray hair. "Armed guards. Shoot the bastards out of the sky."

"Impossible," Juanita Chung protested. "Our mandate is to preserve the indigenous life, not destroy it."

The two glared at each other. This was an old argument, but before it could go any further the professor held up a restraining hand. "Frankly," he said, "I'm at a loss. I've considered arming our people, but I'm afraid that at best it would merely drive the Avians out of range of the sensors. At worst it would invite retaliation. So far, some of our people have been shaken up but none has been killed. We daren't be the ones to escalate the conflict. But on the other hand, the only alternative seems to be to give up and admit we can't complete our census of the Avians."

"Perhaps not," Foster said. He didn't usually speak much at these conferences and even now he sat off to one side quietly tamping tobacco into his pipe. "My son's a film buff, and before the expedition left he insisted I accompany him to a showing at the Museum of Antique Cinema. At the time, I admit, I thought it a terrible bore, but as I think of it now—"

"What's your idea?" Von Erdbeeren interrupted. "To set up a projector and count the Avians as they flock to see the film?"

"No," Foster said, unruffled. "The film I recall dealt with the efforts of a group of men to drive off or destroy a large marine animal that was terrorizing what the film identified as the New Jersey coast. To study the beast more closely one of the men descended into the water protected by an iron cage. It seems to me our problem isn't that dissimilar and perhaps we can solve it—" He touched fire to his pipe and spoke between puffs. "—the same way—by enclosing our enumerators in cages before sending them off into Avian territory."

For a moment no one spoke. Then Spatlese nodded thoughtfully. "It's worth a try anyway," he said. And that settled it. Two weeks later the first hastily improvised cage set on a heavy wagon frame and drawn by a drone tractor set for the Avian lands. The results were encouraging. Others followed and soon Spatlese was able to report proudly: "We've had great success with our closed-in counters of the bird kind."

THE POSTAGE STAMPS OF PHILO TATE

by Martin Gardner

As an experiment this time around, because of the complexity of the second part of Mr. Gardner's puzzle, we will present the second solution, not in this issue, but in the one following.

When Philo Tate became postmaster general of the U.S. colony on Mars, he saw a chance to fulfill a lifelong ambition. Why not, he said to himself, issue a series of stamps with carefully chosen values so that no more than three stamps would be needed to give a total value for any positive integer from 1 through whatever number would be the highest possible?

At that time on Mars a postcard cost one dollar to mail from any dome in the colony to any other dome. The lowest stamp in such a series obviously had to have a value of 1. Suppose the series consisted of just two stamps. To meet Tate's conditions, the best choice of values are 1 and 3. It is easy to see that by using one, two, or three stamps one can obtain any sum from 1 through 7:

$$\begin{aligned}1 &= 1 \\1 + 1 &= 2 \\3 &= 3 \\3 + 1 &= 4\end{aligned}$$

$$\begin{aligned}3 + 1 + 1 &= 5 \\3 + 3 &= 6 \\3 + 3 + 1 &= 7\end{aligned}$$

No other choice of values for the two stamps can give all consecutive values from 1 through 7 or any higher number.

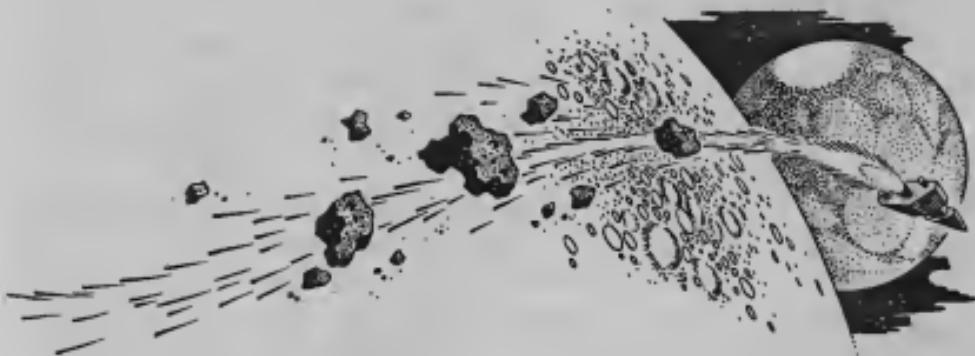
It is not hard to solve the problem for a series of three stamps. The best one can do are the values of 1, 4, and 5. By using one, two, or three of these stamps one can obtain any sum from 1 through 15 dollars.

Philo Tate's first issue was a set of four stamps. The dollar stamp was a maroon portrait of Edgar Rice Burroughs. The other three featured the faces of H. G. Wells, Ray Bradbury, and Isaac Asimov. By choosing the values carefully, Tate was able to obtain all sums from 1 through 24.

What values were assigned to the Wells, Bradbury, and Asimov stamps? (See page 87 for the answer.)

By the way, when the first supply of the stamps arrived from Washington, DC, Tate said to his assistant, a young lady who had been born on Mars and lived there all her life, "Let's get these distributed to our branch offices as soon as possible." Then he remembered an old verbal joke he used to play on postal employees when he first started to work, as a young man, in the New York City post office. "As we used to say back in old Manhattan," said Tate, "neither rain nor snew can detain our couriers from their appointed rounds."

"What's rain?" she said.



EXTERNAL REVENUE

When his rocket was taxed by a levy
Which the astronaut thought was too heavy,

He painted the scratches,
Battened the hatches,
And traded it in on a Chevy.

—Julia Keller

GEORGE BARR

by Ginger Kaderabek

Illustrator George Edward Barr doesn't remember a time when he wasn't drawing. When his father introduced him to science fiction, the fantasy-loving child found a combination of these two loves a natural career.

"As far as I can remember, I've always been drawing," the soft-spoken artist said in a recent interview. His parents have told him he began to draw at about two years of age after his older sister got attention for some drawings she did in kindergarten.

Barr was born January 30, 1937, in Tucson, Arizona, and spent his childhood in Salt Lake City, Utah, drawing and reading. "If I was better at drawing than the other children, it was because I spent so much time doing it," he said.

He had read Jules Verne and fantasy such as *Peter Pan*, but "I started reading science fiction at age 13 when my father brought home a copy of what I believe was *Amazing Stories*. The love was immediate." After drawing all his life, the combination of art with science fiction and fantasy "seemed a natural choice for a career."

At that time, he did not really consider such a career. "It was just something that grew and I kind of fell into the opportunities that came. I found myself in it and it was what I wanted."

Barr studied art under prominent Utah landscape artist Jack Vigos for two years in high school in Salt Lake City. "He was fabulous—one of the few people I know who could do, as well as teach." What he mainly learned from Vigos was not technique, but self-confidence. "At the time I was extremely repressed. I felt I was inadequate for anything of any value." He was never athletic, and in the 1950s, the football hero was king. "The only things I was any good at were things the other kids looked down on. He (Vigos) gave me a sense of self-respect I never had before and helped me appreciate the talents I had and take a certain amount of pride in them," Barr said.

After being graduated from high school in Salt Lake City, Barr spent a year and a half in a vocational school commercial-art class. In that class, he learned basics, such as color harmony, which were "very valuable," but the teaching was limited in that it was aimed at what was currently available in the Salt Lake City commercial-art job market. "They were somewhat discouraging because they didn't see any application in the local market for what I was trying to do."



© G. Barr - 1976

One need in the local market was for commercial artists to do grocery-store work such as lettering signs. "I was always lousy at that," Barr commented. He quit the course before it ended and resisted his instructors' efforts to turn him toward the local art market. "I was always afraid if I took a job that was less than what I wanted, the security of it would keep me from doing what I always wanted to do."

Barr didn't even realize he had made his first sale to a science fiction magazine until sometime after it happened. He did a piece which he thought might make a good cover and sent it to Ziff-Davis in about 1961. He got a letter back from Ciel Goldsmith at Ziff-Davis stating what changes would be needed in the piece. "With no experience, I took it as a rejection and set the piece aside," Barr said. He then sent several pieces to one of the first science fiction convention art shows where Goldsmith again saw his art. She was interested in another piece and at that point Barr found out that she had not rejected the earlier piece. He altered both paintings to her specifications and sold them for use in *Fantastic Stories*.

Barr won the Hugo award for best fan artist in 1968 and has been nominated for either a fan or professional artist Hugo in almost every year since 1967. He was guest of honor at the Golden State Comics Con in San Diego, California, in the early '70s and was fan guest of honor at the 1972 Westercon in San Francisco and at the 1976 World Science Fiction Convention in Kansas City in addition to being artist guest of honor at the 1977 Octocon in Santa Rosa, California.

Much of this recognition by science fiction fans has been as a fan artist, even though Barr has made his living as an artist for almost 20 years. Barr said a number of fans-turned-professionals had told him it was difficult to shake the fan label. "I understand that this is something you never outgrow. You and everyone else think of yourself as a fan. Despite the fact that I've made a living with art for almost 20 years, I still think of myself as a fan who had some lucky breaks. I'm still absolutely in awe of people like Kelly Freas." Noting that it had been some time since he had done any specifically fan work, Barr commented, "I'm still very much a fan of science fiction. I wouldn't be working in the field if I weren't."

Regarding his nominations for fan rather than professional artist awards, the genial artist, who has been known to portray himself as a somewhat overgrown hobbit, said, "This may sound

excessively modest, but I don't seek awards. The fact that I'm nominated is an absolute delight to me. To actively seek awards would require more self-confidence than I could ever possess." The fans will have to be the ones to decide on the professional versus amateur question, he said. "They have to make the decision. All my standing up and shouting 'I'm a pro' is not going to change their minds."

This same lack of self-confidence could have kept him from ever becoming a science fiction illustrator, Barr contends. "I'm not a go-getter. If I hadn't fallen into it, I might never have had such a career."

Barr has had work published in *Fantastic Stories*, *If*, *Famous Monsters of Filmland*, *Forgotten Fantasy*, *Vertex*, and, of course,



Isaac Asimov's Science Fiction Magazine. His work has been published by Ballantine Books, Ace Books, DAW Books, and many others. However, he said, "I've been awfully lucky in that with only one exception, I've never gone to the publishers. The only one I ever did contact was Don Grant, because I was anxious to do a book for him, but in almost all the other cases the editor contacted me. If they hadn't, I don't know if I ever would have done any of that work, because I don't have the self-confidence to go in and say, 'I'm great, use me.'"

Barr was interested in working with Grant, a prominent limited-edition publisher in the fantasy field, because Grant offered him a chance to illustrate a book without the amount of editorial guidance he was used to from other publishers. "For an illustrator, that's an incredible freedom, to be able to take something and just fly with it. It was an opportunity to have total freedom to do what I wanted—and get paid for it," he laughed.

His first book for Don Grant took two years to do because, in part, Barr said he's a man who needs deadlines. "Deadlines trouble me somewhat, but if I don't have a deadline, I don't get it done. I'll procrastinate forever. I try to get editors to give me a very hard-and-fast deadline."

Grant also published *Upon the Winds of Yesterday And Other Explorations: The Paintings of George Barr*, a collection of Barr's work. The first edition of 2,500 is nearly sold out and Barr said the whole project "really was exciting, and it didn't cost me a cent, since everything in it was stuff I'd already done. I had moments of unease, however, when I realized he (Grant) could lose his shirt."

Aside from book, magazine, and record illustration, Barr also did the poster for the erotic parody film *Flesh Gordon* and designed several of the animated creatures in the movie. He designed the costume for *The Octoman*, a movie which was never released (deservedly so, from accounts Barr heard of the quality of the script). The Octoman he designed was "the dumbest looking thing I ever saw."

In addition to illustration per se, Barr's career has included a great deal of work for private commissions and specifically for sale at science fiction convention art shows. He has also done some freelance advertising work and, before moving to Los Angeles in October 1968, some commercial work, which he disliked for its lack of creativity. "A person would say, 'Here is what you draw and how you draw it.' It wasn't anything I could claim

as my own or take pride in."

Barr estimated that his commission work plus his work specifically for conventions would come to about half of his artistic output. This work is usually bigger and more elaborate than his purely illustrative work, but Barr vehemently contested the idea that there is a difference between these "fine art" pieces and illustrative art. "The distinction, as far as I can see, is only in the eyes of the fine artist. The illustrator can't see it."

Barr agreed with the contention that prior to the rise of printing, the concept of fine art didn't really exist. "The whole theme of early artists was illustrative," Barr said, noting that early artists drew heroes and mythological characters with which their audiences could identify.

The first fine artist was "a person who wanted to make it as an illustrator but couldn't," Barr asserted. Although abstract art and other forms of non-illustrative art have valid aspects now, "I think the beginnings were out of frustration, because an artist realized that his talents didn't lie in the direction of what was being done. So he did what he could and then justified it as fine art.

"I also believe that if an artist paints a picture in the hope of selling it, it's commercial art and I see nothing wrong with that. If an artist paints only for himself, that's fine, but he shouldn't show it to the public and expect the public to understand it."

In illustrating a typical book, "I go through the book, reading it carefully for descriptions of characters or places." He takes notes and puts together all the descriptions scattered throughout the story. He then sketches out various ideas in pencil in a sketchbook. Depending on what the publisher requires, Barr then does three to five miniature versions of the cover painting, in about the size the cover will finally appear. The editor or art director then chooses one version or parts of different versions and Barr does the final cover from those suggestions.

"I like to stay as close to the story as possible, but if the publisher says (a character) can't be nude even though the author very clearly says she is, I have to make allowances."

Most of Barr's work is done in an unusual medium, ball-point pen and watercolor, using a technique he has developed over a number of years. Barr first pencils in the drawing very lightly on illustration board and then does the drawing totally in black ball-point pen. The finished drawing is a completed black-and-white illustration, complete with tonal variations. The colors are then painted in, "almost as if doing a coloring-book exercise," with

the shading already done by the black ball-point lines.

However, he said, "I do occasionally experiment with other things. The ball-point pen is being used a little less and I'm using more opaque colors. I don't like to stand still—I'm always experimenting."

Knowing that about ten percent of the color value is lost through reproduction processes, Barr tries to make the originals brighter than he intends the finished product to be. "Some of the originals I think are much too garish."

His friend and fellow artist Tim Kirk has termed Barr a "Renaissance man," but Barr chuckled at the idea. "I don't think there is such a thing. I've only met two people who claimed to be Renaissance men, and I thought it was incredibly pretentious."

Nevertheless, he has written a number of stories and songs. "I really would like to do some writing, if I can do it without sacrificing my artwork. I've written a number of things, but I've felt hesitant to send them out." He has written 40 or 50 songs, also only for his own enjoyment, and used to do some singing.

"I've found you can be adequate at a number of things, or good at just one—you'd need about three lifetimes to be good at them all—so I'm devoting my time to art. The other things are purely for relaxation, although very seldom is art what I would consider work. If I were independently wealthy, I would still do what I'm doing, because it's fun."

Of his popularity over the last 18 years, Barr said, "If there is a popularity for what I do, it's probably because I paint pretty pic-



tures, because that's what I'm trying to do. I don't shock or startle; I basically paint things that are pretty, that people can get pleasure from."

Barr, who has lived in San Jose, California, since June 1972, is now doing a painting for a portfolio of framable art by a number of artists being published by Ariel and has just finished a record jacket for a children's album, *Gogo the Blue Gorilla*. A recent cover painting of his, for Richard Lupoff's *Space War Blues*, is being used as a poster in a major promotion of the book by Dell.

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THE FIRST STAR

by J. P. Boyd

art: Tim Kirk

The author is now assistant professor of meteorology at the University of Michigan at Ann Arbor. His full name is John Philip Boyd, but he uses his initials to avoid confusion with other SF writers named Boyd. "Hero," in our second issue, was his first professional sale; this tale, set on a planet well out in the fringes of our galaxy, is his second.

Vlad was a sickly child of a very long-lived race, and the wonder was not that he was so much alone and ignorant, but that he had survived at all. Among the hundred cultures, acceptance of death and illness was in almost inverse proportion to longevity. The frail boy, a source of shame and embarrassment to his family, was kept secluded in an upstairs bedroom of their vast house. He had a nurse, but she was reluctant to come near him without a mask and gloves. She was a stolid witness of each futile attempt to diagnose his malady, and his parents visited him only enough to satisfy themselves that he was still holding on.

Tirameng the optician was too old to care. His wife and eldest son were dead, and his youngest, while warm enough in his messages and generous in his gifts, now lived on the other continent. Tirameng was a distant cousin of Vlad's grandfather—that was how, almost by accident, he had learned of the boy—but between the proud *sharon* of Trinatine and the old glasses-maker was a huge gulf; Tirameng's small, independent means would barely have supported him without his shop. Still, he was a *quothah*—one who need not work—and the servants had no choice but to show him to the boy's apartment.

Vlad was still well short of adolescence, enjoying a strong spell that allowed him several hours of play a day, but the nurse—resenting the crazy, poor relation—had insisted on putting him to bed before the old man came in. Despite her muffled protests, Vlad sat up eagerly when Tirameng entered. The old man stood on the threshold for several moments, looking at the boy and remembering, then pulled up a chair and shooed the nurse away from the bedside.



"Who are you, old man?" Vlad asked bluntly. The social amenities had not seemed essential for a shut-in.

The old man laughed. "My name is Tirameng and I'm the who-knows-how-many times removed cousin of your grandfather. I make glasses and all things made of glass." He pulled a triangular prism from his pocket and held it in the sun. At the splash of polycolor on the swirlwood latticework, the boy opened his eyes wide in amazement, then clapped his hands with glee as though nothing so remarkable had ever happened to him before. Even the nurse could not hide a grudging smile. The old man had not brought much with him, but there were many things one could do with a prism and a glass of water if one knew how. Before he left, he gave the boy a little hollow fish, blown in red glass and shaped by his own hands. He was, after all, a *quothah*, and he did not need to spend all his time grinding glasses or making miniatures for the great shops along the Street of Pines.

From the day of the old man's first visit, the boy rallied strongly. There were a few minor relapses, but after his earnest pleas to his parents had gained the old man almost unlimited visiting rights, Vlad began to improve rapidly. There was, in truth, nothing much wrong with the boy except that the growth that had given his father his deep-chested, kingly build had in his son gone mostly into height. By early adolescence, Vlad was already man-tall, thin, gawky, and with little stamina, but by the time the old man and the boy agreed to his apprenticeship, the doctors could do nothing but nod ruefully and whisper, "Moderation, moderation, do not work him too hard, Tirameng."

The old man, in fact, had little say in the matter. His pupil was a great bump of curiosity, intensely interested in the world so long denied him, but even more intrigued by the refractions of light that had called him from shadow into the vestibule of life. He heated, fused, and ground unceasingly, pausing only at noon for rambling walks. These began under medical orders to build up his stamina and weak legs, but they soon became eager odysseys into the vast city that was so much stranger and more exotic than his sickbed dreams could have imagined. Back at the shop, he ambled about like a pelican learning to fly, tripping over everything with a fine lack of balance and discrimination, scattering frames, cracking finely shaped fish and birds and shattering almost-ground lenses.

And still he grew, and still the old man was amused with him, and somehow he began to learn his trade.

Despite his now-towering height, his hands were his most remarkable characteristic. Folded into his palms, his fingers seemed like those of anyone—a little narrow perhaps, but fine and well made. It was not until he opened his hands that one could see that his fingers were half again as long as those of even a tall man, delicate, spidery, and double-jointed.

At first, his hands were not strong enough, but grinding and cutting changed that rapidly. As the fish and birds that he had made himself, yes, with the old man merely touching them up here and there where his inexperience showed, began to appear in the little shops near the Great Way and on the staggered, blondwood *chidori* shelves of the better houses in the city, people began to appreciate that he had wonderful hands indeed. When he was finally proclaimed an adult, the old man sat at the head table with his parents, and the linen before them—and on the other tables throughout the vast room—shone in the candlelight with the reflections and prismatic of his art. By now, Vlad was certainly the tallest man in the city, but no one whispered behind his back anymore. He was, after all, the *sharon's* eldest, and though he had long ago renounced his primogeniture to his able though somewhat colorless younger brother, he was a man of rank and wealth. Everyone knew that the shut-in once talked of in shame who now wandered the noontime streets, craning everywhere, walking with a giant's stride, had subtly become his parents' first pride.

Vlad was gifted with anything of glass, but though none were as well known as he, there were in sad fact several who were better at sculpture and glassblowing, even in the city. He was a reliable and thoroughly competent maker of glasses, but so were others. His sole undisputed talent was in the making of spy-glasses and telescopes.

Jealous critics said that this was because of his preternaturally long arms and fingers, and in fact they did assist him in aligning lenses in different portions of the tube, but mostly it was because he did things to please himself. To a boy whose only hold on life had been a lofty window overlooking the ocean above the trees, a sea captain's long sight was a holy calling. He did not have the quick mind of his father and brother, but he had an embarrassingly rich imagination, and his eyes missed nothing. By the time the old man died, while his pupil was still a very young man, Vlad had already made several significant improvements in the telescope and was continually working and tinkering with un-

mounted lenses, dreaming of ever larger ones. He owned a little villa on the top of a steep, craggy hill overlooking the sea and the city, and one of his favorite pastimes was to watch for stately, square-rigged clippers and handier fore-and-aft rigged schooners while they were still far out at sea, as he had sometimes done with a little toy spyglass as a child. The focal length of the large, delicately poised refractor on his patio was a compromise between magnification and light-gathering power because he used it for various experiments as well as for spying on the sea, but its size fulfilled his childhood dreams abundantly, and many times he could identify an incoming ship long before anyone else on the coast.

On another world, ships would have sailed by the stars as well as by the lodestone, but so far above the thin, lenticular disk of the Milky Way, so far out in the galactic halo where stars are as old as the universe itself and as rare and isolated as a blossom in the desert, there were only the three planets and the moons and, in those latitudes where it was visible, the galaxy itself to chart the seas. Even so, through most of the interregna of barbarism and noncivilization of this very old world, which had seen the rise and fall of a dozen intelligent species while earth was still a globe of molten stone, the dream of "new worlds over the water" had lingered. Of all the peoples that had dared the open ocean, none had fallen under the enchantment of discovery and colonization as deeply as the Trevani, and none had brought such skills to the crusade. After the last major continent had been explored, no race had transformed itself so completely from a vigorous, hyperkinetic society into a static, conformist culture as these same Trevani. Like a once great sinner for whom no hairshirt is coarse enough, no bread stale enough once he has made his conversion, Vlad's people were not given to half measures in turning away from both the past and the future to make the present immortal. Dissent, speculation—change—were both figuratively and literally bound with terrible iron, seared with fire, and cast away to the distant Isle of Scyros. And if their purgative trials and inquisitions did not bring the Trevani absolution, they put sin away where it did not tempt.

Yet even when the whole world was tame and familiar, there were many in Vlad's time who still dreamed of "new worlds over the water," if not on the far side of a gulf of brine, then of a new land over a metaphysical sea whose substance could not yet be imagined.

For the present, though, there was only commerce on the waters to differentiate between a civilization still ascendent and a species tumbling down to dust. Haunted by the finiteness not only of men but of Man, Trevani sea captains and merchants guarded their sailing schedules against gale and hurricane, pirate and doldrum, as though even the smallest admission of weakness would start a cancer in the soul of the race itself, and they came, stern and solemn, to Vlad, simply because he could increase their chances of coming home. They unbent a little in his presence, these stiff, proud men who could share their secret fears and dreams only with one who was past all pride. In time, he ordered a set of signal flags from a sailmaker in the Bazaar; and whenever he recognized a ship on its way in, he had his servant hoist the ship's name on the stumpy flagpole beside the attic gable of his villa.

Often, he worked at his villa at night. Barring a few, faint patches of glow, the sky was totally black and empty at this latitude and season when neither of the moons was up. Tirameng had never been able to explain to him why the sky was dark.

"It is said that the Pteragaeans knew, and the Mangan before them, and perhaps some others so ancient we don't even remember them. Whatever the reason, I guess it wasn't important enough to them to have come down to us."

"Perhaps it will be different with us."

The old man had smiled. "Perhaps."

Perhaps was still Vlad's favorite word, but his curiosity was now focused in other directions. His friend Glendal, a mariner, had once tried to explain to him the epicycles and changes of the Three Lamps with the years, but Vlad had never taken an interest in the spots of heavenly mist or noticed the coming and going of the Three Lamps with the seasons. For all his affinity for the ocean, he was no navigator. His health and then the need to make up for lost time kept him from being an active participant in the adventure of the sea, and when he read zenith and azimuth from the dials on the mounting, it was only for quick finding when he uncovered the lens again. The large bright moons, however, had curious, ever-intriguing markings that drew his telescopes at night the way the ocean drew them during the day. When he was a child, he had seen them as islands of warmth and light in a sea of darkness as cheerless as his life, and lying awake with their pale moonbeams slanting on the far wall, he had watched them through his window and dreamed of faery kingdoms upon them.

where the style of life was forever in flux and where all little boys were healthy and well.

Usually, he worked—when he worked—inside by candlelight with colored targets ruled into rectangles of decreasing size to test resolution and achromaticity. But tonight, as he took the winding path up the hill, he had finally finished the new eyepiece for the mounted telescope and both moons shone brilliantly in the sky; Azriel, a silver-gold electrum, and Sirach, a rich reddish-yellow. He ate a quiet dinner, skimming the pages of the city broadsheet while his steward served him, then impatiently covered an untouched dish of pudding and went outside to begin working off the old ocular.

The wind was biting and sharp; and with his thin, gaunt frame he was prone to colds, but his early sickness—or at least his mother—had taught him the value of warm clothing. Even his sleeves, tailored to allow maximum freedom of movement, were carefully padded to keep out the chill. Growing up had also taught him to accept a sky without stars, a world without change, and an almost static society built on the ruins of past civilizations. The sense of history was everywhere. His villa, like others, was built on the foundations of so many earlier dwellings that even the greatest archeologists of his time could not have counted them. Each Trevani lived with a strong sense of racial as well as personal mortality. It jaded them a little: the emotional sense (and not merely the knowledge) that whatever they would do would fall down in dust and be lost to memory, as had so much before them. After the great wave of exploration had ended, consciousness of the transitoriness of all civilizations had crowded in upon the Trevani like the awareness of physical death and dissolution in the mind of a repentant prodigal. Combined with thousands of years of nearly changeless culture, this attitude had produced a profoundly introverted, stasis-oriented society. It was perhaps in this way, in his unselfconscious optimism, that Vlad was strangest of all.

He did not mind being strange. As he threaded the eyepiece, he felt an almost childish sense of wonder and expectation. In a few moments, Azriel's three great maria were in clear focus, and he let out a deep sigh of awe. He clung to the ocular for many minutes, fascinated with the new detail. He could clearly see mountains and the shadows of mountains, craters, and the borders of dark seas. He wondered idly how many others had seen the same aeons ago when the now wind-and-rain-worn mountains of the

continent had been towering, jagged crags, and when the Metlin range had been but a roiling in the earth; but in his happiness, he brushed aside his moody heritage. This was *wonderful*, and if he shared something with those long dead, it was a heritage of joy.

Finally, he pulled away and rubbed his eyes. Cranking the mount through a few degrees, he glanced quickly at the eyepiece. He looked again, rubbed his eyes, focused and refocused. Sirach was forgotten. There was a hard, nondiffuse twinkle of light which would not disappear, which was just bright enough—He looked up with his naked eyes, wondering. He could see nothing, but Glendal had amazing sight, and had often spotted far distant sails from the hill even without the 'scope. After Vlad's servant had summoned him, Glendal bent down to the eyepiece, and this time, too, his eyes did not fail him.

"It's such a clear night, Vlad. Come spring, and you won't see anything but clouds, but around the Feast of Two Moons—that's the best time, they tell me, for a lookout." He had shipped out a couple of times as a young boy and now worked as a junior accountant in his father's warehouse.

"What do you think of it?"

"I don't know, Vlad. There's always been patches of mistiness in the sky, and the River in the south, but a point of light that twinkles!" He shook his head. "I'm glad for you. This new eyepiece is wonderful. The captains will really talk of you if you make more of them—for ordinary spyglasses, of course, not for this monster, but I wouldn't talk about this Fourth Lamp."

"What? Why, this is the most exciting—"

"At the time of the worst purges in centuries? They won't kill you, no, not any more—but they could send you to Scyros for fifty years."

"But—"

"No buts." Glendal looked up earnestly at his friend's face. "A hundred and five species of men are extinct, Vlad. Our whole culture is based on the premise that we can only survive if we live within a rigid framework of principles. Hard work, intolerance to any form of laziness or shoddiness, but above all, *no change*, nothing that would disturb the precarious equilibrium of our society. Can't you see that?"

Vlad was almost convinced by his friend's words, but he was always too naïve, too trusting, too friendly, on his rambles through the winding, crowded streets, and by the time he was arrested, the whole city knew of what he had claimed to discover.

Octagonal trials were usually brief and efficient. Rall, the Grand Inquisitor, watched Vlad and his father file in slowly, taking their seats on the stone bench, and a hundred other faces, as young, as eager, danced in the corners of his eye until he shook his head to clear them. Long ago, when the first trials had been held in that curiously-shaped tower at Duran which had given its name to and become the model for justice ever since, the "Octagon" had scourged the indolent, hanged the thieving, and burned the adulterous and heretical with the fervor of an archpriest throwing down the idols of a rival god, and the racks and branding irons of its eight-sided towers had been crueler than the sacking and burning of a city. Now, aside from rare criminal trials, the work of the Octagon was gentler—a warning to a baker's apprentice who daydreamed in the shop, a fine for a careless carpenter; but the mystique of that dark and bloody history still preserved the world like a fossil fly in amber.

The trouble was that the amber was disintegrating. In his great-grandfather's time, craftsman and artisans had been content to maintain the fiction of using the techniques which had been set down in the several volumes of the Book of Common Arts while in fact employing, for all work except official guild examinations and inspections, the vastly superior methods and materials that had been developed over the centuries (usually by accident or necessity, without conscious intent to innovate), and then passed down from father to son. Perhaps inevitably, a crackdown on this hypocrisy had produced a crisis; and in the end, the Octagon itself had yielded. Rall did not quarrel with the principle that had been forged in that acrimony: that any technique, any material was acceptable as long as the workmanship of the final product was sound. But more and more, "artistic license" was being used to shield the taking of shortcuts, of the easy path—the very sort of apathy and loss of pride that the Octagon was supposed to resist. The fossil was stirring in its golden prison. The *sharon* was very powerful, and the boy had not done such a great wrong, but all his life, Rall had agonized over justice, and he would not flinch from dispensing it now.

The clerk handed over the papers of indictment; Rall glanced at them briefly and nodded, then enjoyed a few more moments of reflection while his colleagues skimmed them. How long had he been doing this? Forty years? Fifty? His eldest son had not been born when he had signed the warrant for his first case in the Court of Indolence and Accidie, and now he had five small grand-

children, whose collective energy left him so pleasantly weary after each visit. When he had been himself a child, the world had seemed to change because the eyes with which he was seeing it were changing. In middle age, he saw and felt the endless repetition, the lack of evolution, as strongly as if he himself had for a thousand years guided a plow through the furrows of the highlands, or sailed the Aziz Sea with only a compass and the moons, or been any one of a thousand unaging actors in that mute, unmoving play that was the Trevani. Sometimes, that stasis made him feel as old as the final landfall of the great discoverers, as old as the eight-sided towers of justice.

Well, he still had many years of work left in him. Not all magistrates took their responsibilities as seriously as he, but their civilization *would* be the most enduring, their race *would* leave the most shining legacy, a legacy of moderation and contentment in the present, as it went down into dust. Here and there were appearing signs that his world was crumbling, and he'd be damned if he'd watch it fall without—

Standing before the five judges and facing away from the prisoner, the first witnesses were examined, beginning, *pro forma*, with rather commonplace people to enter the charge on record. A fruit vendor, the tailoress who made Vlad's clothes, a street constable—in timid, frightened voices, each testified what Vlad had told them and left, hesitating sometimes to give long, stricken, sidelong glances at their friend, who tried to smile back. Glendal was the final witness; he was frightened almost out of his wits, and the Grand Inquisitor had to interrupt him repeatedly to steer him back to the questions.

"Relax, be calm. You have already convinced us of your innocence. You both thought you saw something; you warned your friend that it could not be, and he disregarded your good advice. What could be wrong with that?"

"Yes, that's exactly how it was. I thought, that is, we both—"

"Thank you, thank you. You may go with our thanks." As Glendal was led away, still mumbling, he spread his arms and shook his head at Vlad, who felt enormously sorry for him. Rall looked meaningfully at each of his colleagues in turn, but before he could speak, the *sharon* rose.

"The most obvious test of my son's guilt or innocence is to come to his villa and look through his telescope. Surely, there can be no harm in that?"

Rall flared. "Do you really believe this preposterous—" He

stopped suddenly. The Octagon had authority over even the *sharon*, but in view of his position, he at least deserved courtesy. "Very well. We will—when will the weather be, ah, suitable?"

"Three months," Vlad blurted out.

"*Three*—" The judge checked himself again and rubbed his face with his hands. "Very well, you are released until then, provided you speak of this to no one. If you do—we'll clap you in chains. If you don't—" he paused and looked at the almost child-like grief on the boy's face and the majestic sorrow on his father's, then went on more softly. "—If you don't, you won't need to go to Scyros. You must, however, confine yourself to glassblowing and ordinary spectacle-making."

The months passed quickly. Occasionally, in brief moments of clearing, Vlad searched in vain for the Fourth Lamp, but he was not terribly worried. In early summer would come sudden clearing, and the sky would once again have that crystal transparency that had brought the Fourth Lamp into his life, and he was confident that he could find it again. He knew that the other Lamps moved, though none but mariners noted their highways, but Glendal had once mentioned to him something to the effect that the fastest made its great gyre in not less than fifteen years, and that the others had scarcely moved in his lifetime. So far as Vlad could tell, his Lamp had crossed the zenith at the same hour and angle above the horizon each night he had watched it, though he had never thought to bring a chronometer out into the dark. Glendal might have resolved these mysteries, but he shunned Vlad now, partly out of fear, partly out of shame, and Vlad abandoned his midday walks, for the first time unhappy with his visibility, for the first time conscious of causing pain to the many friends he had made on his excursions.

It was a warm, clear night when they finally held the test. To give him time to set up, his father had lured the judges inside and told them jokes over the wine, but the conversation was uneasy and often broken by long silences. No one could keep his mind off the trial about to begin.

Vlad was cheerful, almost ecstatic, when they filed out onto the little balcony. The last of the spring storms had burned off during the day, and he believed he would be able to see Andrian Island again tomorrow although it lay more than fifty kilometers from the harbor. "It was very cold, the first night I saw it. My mother would never have let me out in such a chill, but Sala Katuchi made a wonderful coat to keep me warm and let me work as

freely as in summer. I had just made a new eyepiece and it was dark when I came up the hill to dinner. It must have been almost midnight before I came out to test it. I had worked on it for almost a season, off and on. Glendal gave me the idea. He told me that at sea, lookouts sometimes tried putting a short glass behind a long, bracing it on the spars like this. Well, he thought it was crazy, 'a spyglass has three lenses already,' he said, but I—"

Rall shifted his feet restlessly, Vlad's father had folded his arms, and the others were staring off into space or drumming their fingers, but there was something indestructible about the child-like innocence of this enormous adolescent; and despite the impatience that gnawed at all of them, they listened to the end.

Vlad bent down and peered at the dials. "Yes, this is about right." He moved the field slowly from side to side, searching patiently, but the sky was empty.

"I wonder if I mis—" He squinted at his notebook in the darkness and his father held the lantern closer. "No, unless I wrote it down—" He frowned and searched again. "That's very strange. I marked down the exact coordinates on three different nights, and the changes were so slight that—" He went back to the telescope. Rall caught the *sharon*'s eye and shook his head slightly. The *sharon* darted back a look of pure hate and bent over his son's shoulder. "Don't worry, son, you'll have all the time you need."

Rall sighed. "Well, it looks like it's going to be a while. Can we have some more of your wine and cheese?" The *sharon* gestured to the servants, a little relieved. The boy fiddled with his notebook and the angle dials, babbling on about how wondrous the star had looked, how green glass tended to mottle unless you increased the silica fraction slightly as the dye was added, still confident of success. A few moments later, Vlad's father pulled Rall inside.

"I won't make things easy for you. I know I can't attack you directly, but I have enormous leverage and—"

"I know, *sharon*, but we're not children. For all your bluff and bluster—" Rall took a long pull at his drink"—you couldn't possibly make it as hard on us as that boy outside is doing." Rall stared at him for a moment, locking eyes, then upended his glass and strode toward the kitchen to be alone with his thoughts.

With his extraordinary height and naïveté Vlad seemed at times to almost be of another species—a throwback to the past, a foreshadowing of a future not yet come. But he was really the most maddeningly typical of all; in him, the Trevani discipline and intelligence had simply been transmuted from stoic duty into

unselfconscious joy. The restless yearning for "new worlds over the water" that most suppressed and hid was in him turned outward and shared with others through his trinkets and telescopes. His only crime, ultimately, was to show on the surface that mixture of iron determination, patience, and unsatiable curiosity that would either eat away at civilization from within—or lead it to a future unimaginable.

Even so, Rall thought, his duty was clear. Pausing only long enough to take a fresh glass, he strode back towards the balcony and the empty sky.

§ § §

The sun was very warm, but the Grand Inquisitor found Vlad outside on his balcony beside his telescope, slumped forward against the rail with his head in his hands. Rall spoke gently: "We had it posted throughout the city that you couldn't find your Lamp again. Silly of us. Everyone knows already. Still, we had to make a gesture, you understand."

Vlad did not move.

"You're free to keep this spyglass of yours, look at anything you want, talk with anyone you want. Your friend Glendal really tried to help you. Maybe now that this is over, you and he can look for it together."

Vlad's head came up sharply, anguished and disbelieving.

"Yes, it's true." Rall slapped the bronze mount and ran his fingers over the dials. "Without your toy here, who would tell us when the ships were inbound in time for the girls and wives to primp? No, the whole port would be in an uproar if we took this from you."

"Why? Why, *really?*" Vlad almost screamed the question.

Rall suddenly looked very weary. "I don't know why, really. Legally, you recanted last night when you admitted you could not find it again." His tone suddenly became mocking. "Surely, no one could fault the court for taking no action against an honest craftsman who in one small respect has not fully recovered from the long and well-known debility of his childhood? Surely, no one could censure those of his friends and acquaintances who choose to humor him in this weakness of his nightsight?" His voice lost its sarcasm and he went on in a tone of resignation: "No, all is forgiven the ill in our culture; it is how we atone for shutting them away as you were. It was so easy, in the end, to blame it on weak eyes. We had been so sure, so worried, that you would show us a nebula, a patch of light as fuzzy and shapeless as a morning

fog, and swear by all the gods it was a Lamp. We underestimated you."

Visibly recovering, Vlad started to speak, but Rall went on: "But I still don't know why, *really*, we did not go farther. None of us had much stomach for taking the tools from one of our few genuinely gifted craftsmen—that would run against the whole purpose of the courts—and certainly not from one with so powerful a father. And it is true, as we discussed during our deliberations, that it is only when it converts people against their will that an idea becomes a revolution. Thanks to our postings, these will say, 'yes, but he recanted, yes, but his eyes are bad—he was confined in the dark all through the childhood,' and they can still believe whatever comforts them.

"Even so, when I came back to the balcony after being alone for a few minutes, I had made up my mind to confiscate this large telescope. It would have been the right decision. For now, this will only be 'a ripple on a smooth lake,' as the poet says; but in the long run, who knows what devilment will grow out of this Fourth Lamp."

Rall leaned over the railing and looked down at the city and the ocean, saying nothing for a few moments. "We've been at our jobs a long time, lived a long time. Usually, we deal with theft, indolence, civic neglect—obvious crimes, clear issues. This city has looked like this since your father and I were children. Nothing changes, nothing surprises, nothing new is ever found except—" he looked straight at Vlad "—tombs and long-dead bones."

He folded his hands. "You know, of all the races, the Pteragaeans endured the longest. They lusted and loved, fought and daydreamed—they shouldn't have lasted ten centuries the way we look at things, but their species and its derivatives lived more than ten million years, if the historians are believed. You would have liked them, I think."

Rall looked back at Vlad soberly, and his voice suddenly rising with either embarrassment or irritation, he almost shouted, "No, I can't tell you why, *really*, we voted the way we did. It was the most foolish decision we ever handed down. I want you to promise me something." He almost barked the last few words, but as the boy nodded numbly, his face softened. "Promise me—promise me that if you find it again, you'll let me look?"

§ § §

Ten thousand parsecs above the disc in the galactic halo, the distance from star to star is a hundred times that from Sol to

Alpha Centauri, and each star shines alone. Because of their poverty in iron and nickel and all the higher elements, a consequence of their extreme age, a terrestrial planet around a halo sun is as rare as a black pearl, but there was an exception. Life began under a dark and empty sky while Earth was still a fiery embryo. As in the spiral arms where suns are young, metal is plentiful, and human-inhabitable planets are as common as fish in the sea, the seasons trace their cycle. On a hundred thousand worlds, astronomers and astrologers follow the rise and fall of the local zodiac, the familiar rhythm of the change of constellations with the turning year. Later, much later, Glendal was able to make Vlad understand this march of the seasons. When the fall came again, a glasses-maker on a small world in the halo found his lost star, and *sharon* and magistrate jostled elbows to share it with him.

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AS CHEMIST TO CHEMIST

by Isaac Asimov

art: Frank Borth



This time around, our Dr. Asimov would like to demonstrate that Martin Gardner is not the only writer for this magazine who does two-solution puzzles. This one first appeared as "A Problem of Numbers" in Ellery Queen's Mystery Magazine, and is © 1970 by Isaac Asimov.

Professor Neddring looked mildly at his graduate student and noted no nervousness in him. The young man sat there at ease; hair a little on the reddish side, eyes keen, but calm; hands in the pockets of his lab-coat. Altogether a promising specimen, the professor thought.

He had known for some time that the boy had been interested in his daughter. What was more to the point, he had known for some time his daughter was interested in the boy.

He said, "Let's get this straight, Hal. You've come to me for my approval before you propose to my daughter?"

Hal Nord said, "That's right, sir."

"Granted that I'm not up on the latest fads of youth—but surely this can't be the new in-thing." The professor thrust his hands into *his* lab-coat pockets and leaned back in his chair. "Surely young people aren't taking to asking permission? Don't tell me you'll give up my daughter if I turn you down?"

"No, not if she'll still have me, and I rather think she will. But it would be pleasant—".

"—If you had my approval. Why?"

Hal said, "For very practical reasons. I don't have my doctor's degree yet and I don't want it said that I'm dating your daughter to help myself get it. If you think I am, say so, and maybe I'll wait till after I get my degree. Or maybe I won't and take my chances that your disapproval will make it that much harder for me to get my degree."

"So for the sake of your doctorate you think it would be nice if we were friends about it."

"To be honest, yes, professor."

There was silence between them. Professor Neddring thought about the matter with a certain creakiness. His research work for some years now had dealt with the coordination complexes of chromium and there was a definite difficulty in thinking with some precision about anything as unprecise as affection, marriage, and the probable future of either.

He rubbed his smooth cheek (at the age of half-a-century he was too old for the various beard-styles affected by the younger members of the department) and said, "Well, Hal, if you want some decision from me, I'll have to base it on something, and the only way I can judge people is by their reasoning powers. My daughter judges you in *her* way, but I'll have to judge you in *mine*."

"Certainly," said Hal.

"Then let me put it this way." The professor leaned forward, scribbled something on a piece of paper, and said, "Tell me what this says, and you will have my blessing."

Hal picked up the paper. What was written on it was a series of numbers: 69663717263376833047.

He said, "A cryptogram?"

"You can call it that."

Hal frowned slightly. "You mean you want me to solve a cryptogram, and if I do, then you'll approve the marriage?"

"Yes."

"And if I don't, then you *won't* approve the marriage?"

"It sounds trivial, I admit, but this is the criterion by which I judge. You can always marry without my approval. Janice is of age."

Hal shook his head. "I'd rather have your approval. How much time do I have?"

"None. Tell me what it says *now!* Reason it out."

"Now?"

"Of course."

Hal Nord shifted in his chair, which creaked in response. He stared at the numbers in his hand. "Do I do it in my head? Or can I use pencil and paper?"

"Just do it. Talk. Let me hear you think. Who knows? If I like the way you think, I may give my approval even if you don't solve it."

Hal said, "Well, all right. It's a challenge. In the first place, I'll make an assumption—I'll assume you're an honorable man and would not set me a problem you knew in advance I couldn't solve. Therefore this is a cryptogram which, to the best of your judgment, is one I can solve sitting in this chair and on the spur of the moment.—Which in turn means that what is involved is something I know well."

"It all sounds reasonable," agreed the professor.

But Hal wasn't listening. He continued, deliberately, "I know the alphabet well, of course, so this could be an ordinary substitution cipher—numbers for letters. Presumably, it would have to have some subtlety if it were, or it would be *too* easy. But I'm an amateur at that sort of thing and unless I can see at once some peculiar pattern in the numbers that gives the whole thing meaning I'd be lost. There are five 6's and five 3's but not a single 5—and that means nothing to me. So I abandon the possibility of a generalized cipher and move on to our own specialized fields."

He thought again and went on, "Your specialized field is inorganic chemistry and that, certainly, is what mine is going to be. And to any chemist, numbers call to mind atomic numbers immediately. Every chemical element in the list has its own characteristic number and there are a hundred and four elements known today; so the numbers involved are from 1 to 104.

"You haven't indicated how the numbers are divided up. There are the one-digit atomic numbers from 1 to 9; the two-digit ones from 10 to 99; and the three-digit ones from 100 to 104. —This is all obvious, professor, but you wanted my line of reasoning and I'm giving it to you in full.

"We can forget the three-digit atomic numbers, since in them a 1 is always followed by a 0 and the single 1 in your cryptogram is followed by a 7. Since there are twenty digits altogether, it is at least possible that only two-digit atomic numbers are involved, ten of them. There might be nine two-digit ones and two one-digit ones, but I doubt it. Even two one-digit atomic numbers could be present in hundreds of different combinations of places along the list and that would surely make things too difficult for solution as I sit here. It seems certain to me, then, that I am dealing with ten two-place digits, and we can turn the message into: 69, 66, 37, 17, 26, 33, 76, 83, 30, 47.

"These numbers seem to mean nothing in themselves, but if they are atomic numbers then why not convert each into the name of the element they represent? The names *might* be meaningful. That's not so easy off-hand because I haven't memorized the list of elements in order of atomic number. Can I look them up in a table?"

The professor was listening with interest. "I didn't look up anything at all when I prepared the cryptogram."

"All right, then. Let's see," said Hal, slowly. "Some are obvious. I know that 17 is chlorine, 26 is iron, 83 is bismuth, 30 is zinc. As for 76, that's somewhere near gold, which is 79; that means platinum, osmium, iridium—it would be osmium. Two of them are rare earth elements and I can never get those straight. Let's see—Let's see— All right. I *think* I have them."

He wrote rapidly and said, "The list of ten elements is: thulium, dysprosium, rubidium, chlorine, iron, arsenic, osmium, bismuth, zinc and silver. Is that right? —No, don't answer."

He regarded the list thoughtfully. "I see no connections among those elements; nothing that seems to give me any hint. Let's pass on then and ask ourselves if there is anything besides the

atomic number that is so characteristic of elements that to any chemist it would spring to mind at once. Obviously, that must be the chemical symbol, the one-letter or two-letter abbreviation for each element that comes second nature to any chemist. In this case the list of chemical symbols is—" He wrote again. "Tm, Dy, Rb, Cl, Fe, As, Os, Bi, Zn, Ag.

"These might form a word or sentence, but they don't, do they; so it would have to be a little more subtle than that. If you make an acrostic out of it and read just the first letters, that doesn't help, either. So you try the next most obvious device and read the second letters of each symbol in order and you come out with 'my blessing'. I presume that's the solution."

"It is," said Professor Neddring, gravely. "You reasoned it out with precision and you have my permission to propose to my daughter, for what that's worth."

Hal rose, turned to leave, then hesitated. He turned back. He said, "On the other hand, I don't like to take credit that's not mine. The reasoning I used may have been precise but I offered it to you only because I wanted you to hear me reason logically. Actually, I knew the answer before I began, so in a way I cheated and I've got to admit that."

"Oh? How so?"

"Well, I know you think well of me and I guessed you would want me to come up with a solution, and that you wouldn't be above giving me a hint. When you handed the cryptogram to me, you said, 'Tell me what this says, and you will have my blessing.' I guessed that you might mean that literally. 'My blessing' has ten letters and you handed me twenty digits. I broke it into ten pairs at once.

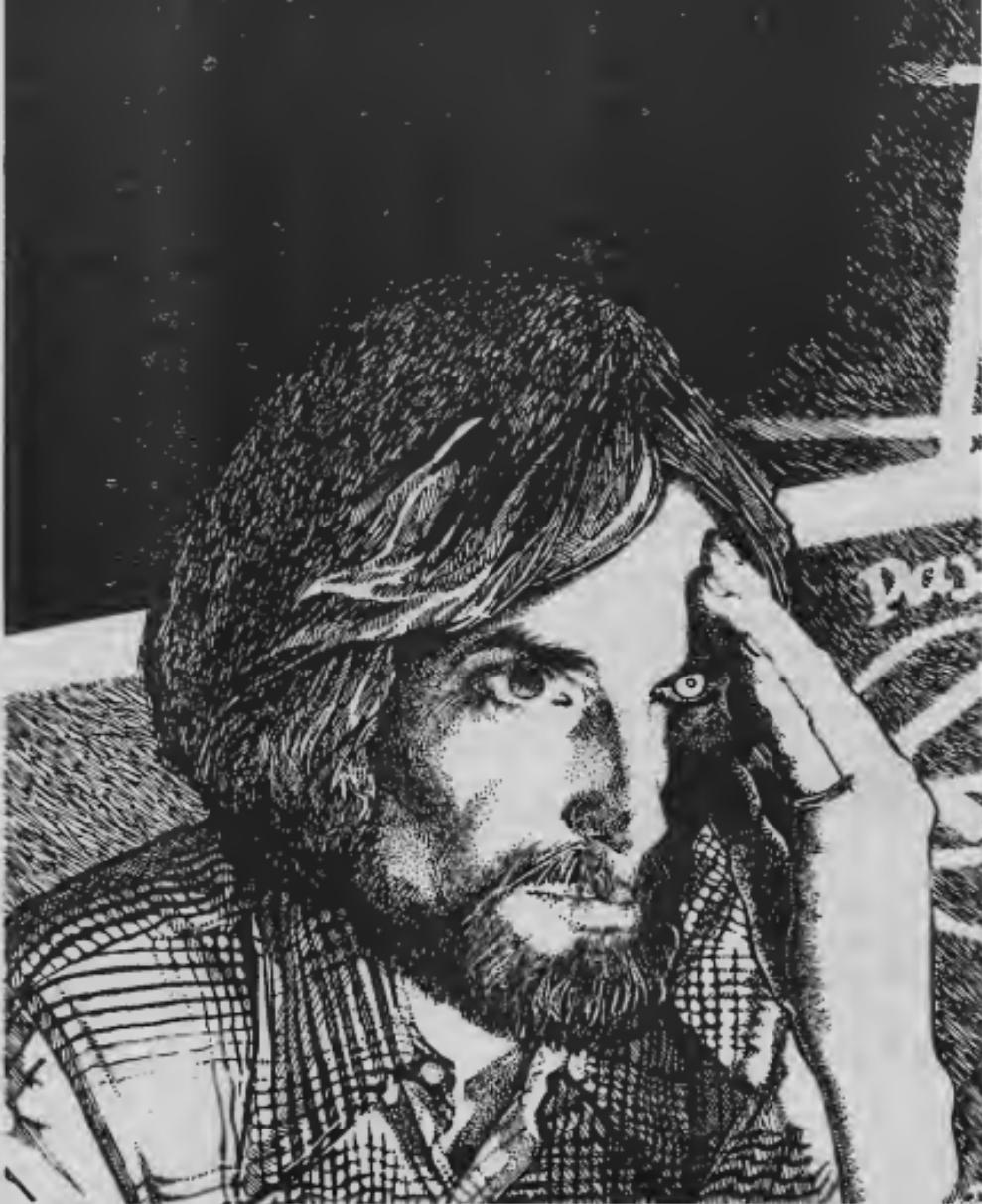
"Then, too, I told you I hadn't memorized the list of elements. The few elements I did remember were enough to show me that the second letters of the symbols were spelling out 'my blessing' so I worked out the others from among those few that had the proper second letters in *their* symbols. Do I still make it?"

And now Professor Neddring *did* smile. He said, "Now, my boy, you *really* make it. Any competent scientist can think logically. The great ones use intuition."

THE MAN WITH THE EYE

by Phyllis Eisenstein

art: Val Lakey





Mrs. Eisenstein, now 31, was born and raised in Chicago. She worked her way through college (from which she dropped out after three years to marry Alex) as a part-time butcher. She's been married for eleven years, two of which were spent in Germany (courtesy of the U.S. Air Force), where she learned to speak German badly, and only in the present tense. She is a member of the Chicago Semi-Pro Musica, a group of people who spend one evening a week eating cheese and singing madrigals.

I couldn't remember seeing him before that day—it was a Thursday morning, I know, because the weekly specials had just changed and I was having my usual trouble memorizing a new set of prices for eggs, produce, and snack foods; I had the market's newspaper ad tacked up behind my cash register for reference. Of course, he might have been in the store before, when I wasn't on duty, but I doubted that. He had the slightly hesitant, confused look of a new customer, an overly polite manner, and a sheepish smile in answer to mine. His tweed jacket, with the leather patches at the elbows, marked him "campus," and I gauged him to be an instructor, or perhaps a freshly-promoted assistant professor. He was near my own age of twenty-eight.

"New at the University?" I asked.

He started. "How did you know?" New England accent, probably a Boston-area school. That was a common source of transferring faculty.

"Telepathy," I said, and I began to ring up his groceries.

I was old at the University myself, old Karen Meltzer, an off-and-on student, whenever money and my inclinations coincided; someday I would take my bachelor's degree, if I ever decided to stay in any one field long enough. I was a native, born and bred in the University neighborhood. My father had managed the supermarket for a dozen years before he died; since the age of thirteen I had worked there, and I knew the store and the clientele better than the owners did. As head clerk I had a steady income and considerable latitude about my working hours.

The owners liked me because of my speed, efficiency, and lack of mistakes—which was why I was so surprised when my fingers

slipped and rang up \$0.00 instead of \$2.49 on a rump roast that the new customer was buying. I blamed that mistake on his eye.

He was a good-looking guy, no question about that; if his female students weren't drooling after him, they were blind. But even Paul Newman himself wouldn't have caused me to make an error on the cash register.

I was looking at him every once in a while, trying to be surreptitious about it, and just as I punched the \$2.49, I caught him looking back. I smiled. And then his left eye moved to the outside corner of its socket and back, independent of his right. It startled me for a moment, and when I glanced at the cash register readout, I saw that I had mispunched the price—either my fingers had glanced off the edges of the keys or I had clipped the cancel lever. I didn't normally do things like that . . . But I also didn't normally get customers with floating eyes. In fact, I had never seen a floating eye, though I had heard of them. I shook my head, chastised myself mentally and went on with the tally of his groceries.

Perhaps it was the eye that got me interested. I was between lovers and a trifle lonely. He was new in town and not wearing a wedding ring. I watched him leave the store, and I began to speculate on how I would initiate a friendly conversation the next time I saw him.

He shopped regularly at about 8:30 on Thursday mornings, and he tended to check out at my register. We fell easily into the standard clerk-customer relationship, trading our opinions of the weather, the economy, and foreign policy. For its short lifetime, the new Arab-Israeli war claimed our attention, and he, like everyone on campus except the Arab Students League, came out on Israel's side. He had relatives in Israel; so did I; that gave us a more personal topic of conversation. His name was on his checks: Franklin Wolfberg. He was an assistant professor of statistics. From Boston.

Soon enough, I found out that he was unattached.

Every beautiful thing, I decided, should have some slight blemish, just to set off the beauty. His was the eye. I never mentioned it, not wanting to embarrass him, but sometimes I couldn't help staring at it. I wondered if perhaps he was blind in that eye and didn't even know it floated.

He was a careful shopper. He almost never bought items that were not on sale, and he bought large quantities of those that were. I glanced into his checkbook while he wrote checks for groceries a couple of times, and I saw that his expenditures were

uniformly small and infrequent. I wondered if that marked frugality or stinginess. Myself, I only indulged my expensive tastes on rare occasions, but at those times, I *really* indulged. Of course, as an employee, I got a discount on groceries, which helped my budget quite a bit.

I hoped that he was the sort who indulged himself occasionally.

I was gratified, some weeks later, when he began to return my attention. It was a small gesture but seemed significant to me—breaking his habit pattern, he stopped into the store during a Tuesday lunch, and as he was passing the deli counter where I was eating my can of tuna, he paused to say hello. Not wanting to waste any opportunity, I leaned over the smoked sausage and gave him the most dazzling smile I owned. He met my eyes for a moment, and then his gaze slid downward to focus somewhere in the vicinity of my name-tag. I chattered blithely, trying to pretend I didn't notice anything odd, but all the while I watched his eye, which moved outward and back, like a guppy swimming aimlessly in a too-small jar of water. I caught myself fantasizing that it wasn't an eye at all but a glass prosthesis, loose in the socket. Later, I realized that a glass eye wouldn't move; I might be fascinated by the wrong eye entirely.

Later, too, I discovered that the top three buttons of my blouse had been open during our conversation.

He started turning up more and more frequently at the store, during my lunch hour and my coffee breaks. Sometimes he didn't buy anything at all, though he always appeared to be looking for something, investigating the specials, evaluating various cuts of meat. He sought me out, ostensibly to ask for my expert opinion—was that a properly-marbled piece of steak, or what was the best way to cook those lamb shanks, or how did you tell when a coconut was ripe? After a time his questions became so trivial that I was certain he was more interested in the answerer than the answers. I figured eventually he would overcome his shyness and ask a *real* question, like how about coming out with me after work.

One day we were standing by the lobster tank during my coffee break. I had just finished explaining how to spot the shoplifters who worked with raincoats over their arms, and we were joking about the fish market manager, who was wearing a light plastic coat to ward off splashes from the live fish tanks. Frank tapped the lobster glass.

"I don't know why he worries," he said. "They don't look very

energetic in there."

"The trout are the splashers," I told him. "Lobsters are usually too lazy to make much turbulence."

As if on cue, one of the lobsters in our end of the tank suddenly wriggled all his legs and, standing atop two of his neighbors, reared up on his tail and waved his claws—breaking the surface, he flicked a few droplets in our general direction.

"All right," I said, "*we* seem to have a turbulent lobster."

"They move around quite a bit when you steam them," said Frank.

"Well, I'd move pretty fast if you tried to steam me."

"Have you ever eaten lobster?"

I shook my head. "It's not exactly a traditional midwestern delicacy."

"It's very traditional in New England, and I even happen to have an old family recipe handed down to me from my sister. Perhaps you'd like to try it sometime?"

I was caught off guard and, for a moment, I didn't know how to react. Then I grinned and looked him in the eye (the right one; the left was moving), and I said, "I'd love to."

"Tomorrow night?"

"Sure."

He gave me his address and we bid a temporary farewell.

Once again my blouse was open. I supposed it had caught on something, perhaps the corner of a carton of canned soup—I had been pitching in for a sick stockboy that morning. I evaluated the open blouse as the stimulus of his interest, and I decided to wear something appropriately low-cut for our dinner. I never did like men who were only concerned with my mind.

His apartment was a few blocks from mine, on the third floor at the back of a courtyard. His living room was decorated in early Arctic—furry divans forming a semicircle about a driftwood and glass coffee table, furry rug, furry wall hangings, all white. I was almost afraid to step on the rug; my shoes would have left marks. I solved the problem by taking them off. I wondered if he ever served anything but milk in that living room. I could just imagine what a spilled glass of grape juice would do to his decor.

We didn't eat in the living room but in the dining room, which was all teak. He served avocado salad with the lobster, a heap of steaming oysters, and a white wine whose French label was so ornately figured that I couldn't read it. The taste was superb. He was definitely an indulger of my own caliber.

We retired at last to the living room, that lovely, classic den of seduction. The lush fur was cloud soft and deliciously tickling; it made me want to take off my clothes and roll in it. By the time we moved to the floor, all of Frank's shyness had vanished.

We saw each other often after that, and not just during working hours, though he didn't forget to pass through the store at odd times just to say hello. We traded meals, Tuesday at his place, Thursday at mine; on Saturday night we would go out. Sometimes we joined some of his friends or mine for dinner or a round of one of the board games that periodically swept the campus community. He did very well at board games—he seemed to have a natural feel for the dice. He was less lucky at cards and often dropped three or four dollars in a Friday evening of penny-ante poker.

For the Christmas break, he asked me to go to Las Vegas with him.

"Las Vegas?" I sputtered. "Are you tired of losing mere pin money?"

"I go there every year," he said.

"No wonder you're on such a tight budget."

He smiled and rubbed my cheek with a curled finger. "I never lose enough to worry about."

"Well . . . as long as the plane tickets and the hotel are paid for in advance."

He laughed and hugged me. "All right, Karen. In advance."

He footed the bill for the entire trip, squelching my rather tentative objections with a flourish of his credit card. Las Vegas was not a place I had ever longed to visit; I didn't much care for games of chance involving real money. But I wanted to know more about Frank. I had already seen him with a normal, healthy desire to gamble for peanuts, and now I had my chance to observe him in the big leagues.

He dressed elegantly for the gaming tables, and he walked among them with cool confidence. I wished I could say the same for myself; I felt self-conscious and awkward in the clinging, floor-length garb of the beautiful people. We waited only a few minutes before Frank claimed a place at the crap table, but there was no room for a noncombatant, so after craning over his shoulder for some time, I slipped silently away. I didn't understand the rules, couldn't see the action, and wasn't any sort of companion in the jostling crowd at the table. I strolled over to a nearby bank of slot machines, where I would be able to keep the crap game in view and return if Frank showed any signs of missing me.

With studied nonchalance, I dropped quarters into the one-armed bandit. There was a certain fascination to the practice, and a great deal of frustration; it had much in common with solitaire, which occasionally hooked me so strongly that I played game after game far into the night, praying for a win so that I could go to bed. I had lost almost forty quarters by the time Frank took his first break.

He crept up behind me, so close that when I pulled the lever my elbow hit him in the stomach. He laughed when I jumped; I had been too engrossed to notice his approach.

"You were the one who was so concerned about losing money," he said, as a meaningless combination of fruits turned up. "I'm even, and here you are already on your way to poverty."

I looked down at the three quarters remaining in my hand, and then I dropped them into my purse. "I've reached my limit."

He pressed ten dollars into my palm. "It's a shame to reach a limit on the very first night."

"I brought my own money for gambling," I said.

"This trip is my treat. All of it."

"Frank, I'm not going to gamble with your money." I tucked the bill into his breast pocket.

"All right," he said, kissing my ear, "I'll win you a stake." He changed some bills with the nearest cashier, and when he returned, he passed my quarter machine in favor of a dollar one. "Think big," he said, and he dropped a coin into the slot and pulled the lever.

He lost.

I had experienced the fascination of the machine, and now as I watched, it claimed him. Dollar after dollar he fed into those voracious jaws, and gradually all expression drained from his face; his left eye began to move erratically and the lid twitched in a nervous tic. He must have run through fifty dollars, coin after coin like clockwork, when, suddenly, three bells turned up, and silver dollars came spilling out of the machine in a ringing, glittering stream.

He poured the coins into my cupped palms, and then one by one he fed them back to the machine, working the lever like an automaton. It frightened me a little to see the intensity on his face, and the eye, jerking in its socket like a trapped animal. Then the jackpot came again, and another flood of coins, and another. An attendant hurried over with a canvas bag and politely helped us fill it; Frank shoved the bundle into my hands, dipped into its

open neck, and replenished the machine. Luck was with him now: he would lose a few dollars, and then a rush of money would more than replace that loss. A scantily clad waitress stopped by with champagne; I took a glass and gulped it, Frank waved her away. A small crowd had gathered around us by this time, drawn to the frequent sounds of jackpot, and they watched Frank as if his arm controlled the destiny of the world. I was at once enthralled and sickened by that display of collective concentration, and only the weight of the bag in my hands kept me from begging Frank to leave the limelight.

I was as greedy as the next person.

He stopped himself. He had just lost a few dollars—hardly a hair of what he had won—a string of losses no greater than any other he'd experienced since taking over the machine. But he stepped back a pace and he looked at me, and life returned to his face: a smile. "You think that's enough to keep you busy for a few days?" he asked, gesturing toward the bag.

It felt like a bowling ball. I nodded.

As soon as we left the machine, a member of the crowd claimed it, hoping, I supposed, that some of his luck would stay in the gears.

While I deposited his winnings in the casino safe, Frank returned to the crap table, but he stayed only a short time. The slot machine, he said, had worn him out, and now he wanted to be entertained. In the show lounge, we watched a bevy of gorgeous dancers in glittering costumes, listened to a well-known singer, laughed at a young comedian, and drank a few bourbons. Then we went to bed.

The following morning, after a lazy breakfast, Frank decided that for a few hours we would be tourists. We rented a car and drove down to Hoover Dam, where we took pictures and bought some Indian jewelry at a roadside stand. That night we both wore turquoise and silver to the casino; as we neared the gaming tables, I felt adrenalin surge through my veins, and I found myself hoping that just a touch of his luck had rubbed off on the necklace he had placed around my neck.

There was room for both of us at the crap table this time, in a lighter crowd than the previous night. I never did quite catch on to the rules, but I bet with Frank, small sums to his large. He seemed not to notice what I was doing; he only had eyes for the tumbling dice. As soon as he placed his first bet, his face acquired that blank look I had seen at the slot machine—the look of

utter fascination.

He began to win. Slowly, erratically, losing substantial sums now and then, he pulled ahead. I saw him tuck chips into various pockets, so that he never held a very large amount in his hand. At last, his hand emptied, and he withdrew from the game. But his pockets bulged.

"Would you care to try roulette?" he asked, taking my arm and steering me toward one of the wheels without waiting for an answer. On the way, we made a brief stop at a cashier, trading almost all of his craps winnings for a receipt. He arrived at the wheel with only a handful of chips in his left jacket pocket.

I felt flush with undeserved profits—my purse bulged with chips and I didn't even want to guess how many were there. Still, my natural conservatism limited me to betting red or black, odd or even, and the laws of chance ate steadily at my resources. Standing beside me, Frank watched the wheel for some time without wagering, watched the ball bounce and rattle amid the whirling spokes. At last he placed a single chip on red. He lost it. I saw his lips tighten, I saw his slow frown, and I saw the look of concentration grow on his face as the bets were laid down and the wheel spun. Like many another at the table, he stared at the ball as if willing it to do his bidding, and when it failed him he clenched his fists, fairly radiating anger. He tried black, then red, and red again, and every time he lost. He had won a great deal at craps; his current wagers were as nothing compared to his previous winnings, yet now he reacted to each spin of the wheel as if his life's savings were on the line. He didn't notice when I left the table to visit the ladies' room, nor when I returned to stand opposite him. His field of vision was obviously limited to the wheel, and both of his eyes moved, one faster than the other, in his attempt to follow the motions of that lively ivory ball.

He won at last, with only one chip left, and then, slowly, he eased a few chips ahead, to stay there for the balance of the evening. I stopped participating when my purse was half empty. I was exhausted by then, yearning mightily to go up to our room, shuck my clothes and take a long, hot bath. But I couldn't leave him. I had to be there, I had to see him flirting with his personal demon. I had to burn this night into my memory so that later, at home, I would never forget that the engaging statistics teacher was also the man in the casino, his fists shaking with anger at the bobbling of a little ivory ball.

He turned away at last, his eyes pouchy and red-rimmed, lids

drooping. Clutching his four-chip winnings in one hand, he peered around for me; I went to him, and we helped each other upstairs to our room and the soft, soft bed.

In the morning, over coffee, I said, "Let's go home, Frank."

He checked his cup an inch from his lips. "Not having a good time?"

I shrugged.

"You aren't gambling enough. You have to immerse yourself in it."

"I hate the thought of losing money. I'm not very lucky at games."

"Don't worry. I'll win enough for both of us."

I touched his hand. "The trip's paid for. Why don't we knock off now?"

He shook his head and gulped the rest of his coffee. "Our flight reservations are for Sunday, and I intend to spend most of my time until then making money. Come on." When I made no move to rise, he leaned over and kissed the top of my head. "Are you afraid that I'll lose everything?"

"It isn't that. You seem pretty sensible about it. But . . . it's so tense, gambling. It's like being in an electrical storm. My ulcer doesn't like it."

"I didn't know you had an ulcer."

"I don't. Yet."

"You have to relax. Gambling is fun, as long as you're—as you say—sensible about it."

"You don't look like you're having fun at the roulette wheel."

"Well, I am."

"You look tense. You look like you're about to drop the A-bomb on Hiroshima."

He grinned and nuzzled my cheek. "I'm enjoying every minute of it. But maybe you'd rather go swimming just now?"

"Yes, I think I would."

We spent an hour by the pool, playing tag in the overly-chlorinated water, but ultimately, Frank had to put on his clothes and head for the casino. I followed, more out of morbid curiosity than any other motive.

He started with the dice and racked up an impressive gain, but at last the wheel called to him and he answered his Lorelei. I stood around the corner of the table from him, and once more I could observe the mesmerized stare that replaced all the life in his face, once more I could watch his eyes fall out of synch seeking

the ivory ball. As before, he placed single-chip bets on black or red, and as before, he lost steadily at first.

Then his luck took hold.

I told myself that a dozen wins in a row were not statistically significant. Black, red—there was a fifty percent probability that either would come up on a given spin. If he had a system, I couldn't fathom it; his bets seemed random to me. After twenty straight wins, no one but me had noticed his run of luck; there were too many wagers on the table for his single chip to stand out. By thirty straight wins, however, betting on the color Frank chose seemed substantially heavier; someone had discovered his coattails. Then he lost.

This loss didn't appear to bother him. On the contrary, he smiled when it happened, a smile aimed at no one in particular, and when the new round of betting began, he ignored both red and black to lay a single chip on number seventeen.

The wheel spun, and he lost.

Again.

Again.

Again.

He had almost run through all the chips he had won on the colors when number seventeen came up. He was sweating by then, and I was sweating, too, just watching him. He selected another number, twenty-two, and this time we did not have to wait so many rounds before it came up. Other numbers followed. He would lose on each for a few turns, and then he would win. His luck was hitting its stride.

Slowly, his wagers began to mount. Three chips. Five. Fifteen. He lost frequently, but he won, too, always keeping ahead of his losses. A few other gamblers moved closer to him, even touching him with a sleeve or a shoulder, as if his luck could rub off on them. His choices gained popularity, and chips crowded onto these squares, stacking high, spilling over.

He quit abruptly after a heavy loss, and those who had been betting in his wake begged him to stay, insisting that his luck would turn again. He shook his head and walked away. A heavy loss, yes... but once again his pockets were full. He emptied them to a cashier, kept aside a few chips, and went back to the dice, smiling like a man leaving hard work for a well-earned vacation.

As before, the dice were good to him.

Luck. I wondered if he could feel it blazing within himself, like

heartburn.

Later, as we lay in bed talking over the successes of the day, I had to ask him if he had a system. "You don't have to tell me what it is, of course," I added quickly.

He smiled. "You don't really think there's any system that could predict the motions of a roulette ball, do you?"

"You mean you do it all by intuition?"

"I pick a number, and then I hope very hard. Fortunately, I've always been pretty good at hoping."

I propped myself up on one elbow and looked down at him. "I think you must have some sort of psychic power."

"Psychic power? Me?" He chuckled. "I wish."

"Sure. You make the roulette ball jump where you want, you make the dice tumble until they come up right, you make the slot machine keep spinning until a good combination turns up."

"If I could do all that, I'd be a millionaire instead of a college teacher."

"Not the way you bet."

"I wouldn't bet that way if I knew I was going to win."

"Well, you know now. I've just told you."

"Sorry, I don't have the guts to test your theory. Or is this some subtle way of prodding me to throw my money away fast and take you home sooner than Sunday?"

I shook my head. "If I wanted to go home, I'd go. I wouldn't need a chaperone."

"You don't mind staying?"

"You want to stay and I want to be with you. There's a certain fascination to you, you know."

"I hope so," he said, pulling me down to him.

The next day we swam again, and afterward, as we sipped cool drinks at poolside, I asked him what game he planned to conquer today.

"The same," he said. "Craps and roulette."

"What, not interested in a new challenge?"

He stretched languorously. "Nope."

"You play poker at home."

"And I lose in poker at home."

I crunched one of my ice cubes meditatively. "It doesn't work at cards, hmm?"

"It?"

"The psychic power. No, it wouldn't, would it? You can't manipulate cards the way you can a roulette ball or a pair of dice."

Nobody would notice an extra bounce or two, but cards . . . that takes a different kind of talent."

He swallowed the dregs of his drink, and then he said quite firmly, "Karen, I've had enough of this psychic power nonsense. More than enough." He stood up. "Let's take another dip before getting back to the games."

I followed him into the green water, thinking that he could call it hoping and I could call it psychic power, but they amounted to the same thing.

He kept me by his side that evening, his hand clasping mine with a grip that was sometimes rigid as steel, sometimes loose as the handshake of a Dale Carnegie washout. He never won when it was loose.

We moved from table to table in the course of the evening, alternating craps and roulette, eventually making a complete circuit of the casino's facilities; at each table Frank reaped a modest quantity of chips. I expected him to win this night, and I found myself wondering what was wrong with him when he did not. I knew what financed the lobster dinners now, and the fine French wines, and the weekly losses at the friendly poker game. He could afford to be prodigal at poker, knowing that once a year he would come to Las Vegas and win it all back.

The next day was our last, and he made the most of it. I begged off holding his hand; I knew his luck wouldn't require my presence, so I spent most of my time in the show lounge, bobbing into the casino two or three times an hour to see how he was doing. He gave me some more money and tried to talk me into playing blackjack, but I demurred. With the kind of stake he had given me, I could play penny-ante poker at home for years without touching my own earnings; I didn't want to throw it all away on strangers.

Just before we left for the airport, he picked up his winnings in the form of a certified check. It was larger than I had guessed. He tucked it into his pocket, smiling.

"You should come here more often than once a year," I said.

He shook his head. "A little extra money is nice, but I don't need to be rich." He linked arms with me to follow the porter and our luggage through the crowded lobby and out to the desert sunshine. The airport limousine was at the curb.

"There's nothing wrong with being rich," I said as we climbed into the car.

"There's something wrong with being bored, though," he re-

plied. "A little of Las Vegas goes a long way, don't you think?"

"I might not think that if I were as lucky as you are. I might not mind a bit of boredom then."

His eyebrows lifted. "If you're so keen on money, why do you stay at that lousy grocery job? You could do better—a lot better."

"I like the grocery store. It has a charm all its own."

"Well, I like teaching. I like those bright young faces and their bright young notions. The only thing I don't like about teaching is grading papers . . . and this quarter I'll have a bright young teaching assistant to do that for me."

He slipped his arm around my shoulders, and I leaned back into his embrace. Outside the limousine, Las Vegas was flowing away like a river rushing to the sea. By the time we reached the airport, I felt as though we had left our vacation far behind, as if we were virtually home.

"Penny-ante poker will certainly feel strange after this," I said.

Frank smiled. "I look forward to it."

We both napped on the plane, and the trip seemed very short. I dreamed of the ordinary things of life—pizza, blue jeans, my old familiar cash register—and of games in which a bouncing pair of dice signaled an exchange of fake money rather than real. We took a cab home from the airport; Frank dropped me at my door with a promise to call in a few days. I was too tired to unpack, so I just took a quick shower and tumbled into bed—I had to work first shift in the morning.

And in the morning I had to smile at the obvious similarities between my cash register and a slot machine. Echoes of the Las Vegas trip would be with me for a long time.

On Thursday Frank came in to do his regular shopping, and we bantered cheerfully as I rang up his order. We'd had dinner together the previous night at his place—lobster and a good wine to celebrate the end of vacation. Classes began for both of us on Tuesday; I had decided to use my Las Vegas money to finance a few courses, Frank's among them. He had teased me, there on the white fur rug, about influencing the teacher unduly, and he had vowed to grade me more harshly than any other student. He teased me now about the amount of homework he planned to assign, and the special tutoring I would undoubtedly need. In the midst of laughing and trying to give as good as I got, I wasn't paying much attention to the register readout, trusting my fingers to punch the right buttons automatically, until I realized that a meat package labeled \$3.49 had been rung up as \$1.19.

I called Frank's attention to the error. "See what happens when you distract me?"

"At least you weren't distracted in the store's favor," he said.

I added the missing two dollars and thirty cents, and then I glanced over the tape to see if I had made any other stupid mistakes. I assumed I hadn't, of course—I was just checking out of conscience. I was mortified to discover four other errors, all on meat packages, all in Frank's favor.

And then I understood how very similar a cash register was to a slot machine.

I looked hard at Frank as he stood there smiling, and then I turned to wave at the customers beyond him. "I'm sorry, but you people will have to go to another checkout; we have a mechanical malfunction here." Frank would have scooped his groceries back into his cart and moved, too, but I stopped him. "Let's make another run on your order."

He shrugged. "If you want."

I ripped the old tape off and started to ring his purchases, keeping a careful watch on the register readout at every ring. On the third item, I overcharged him by two dollars.

"That's wrong," he said.

"So it is," I replied, and I punched another inflated price without making any attempt to correct the first.

He caught my arm. "What are you doing?"

I smiled my sweetest smile as I shook off his hand, and quite softly I said, "Compensating."

"For what?"

"You know for what."

He was silent as I continued to add surcharges to his groceries, and when his voice came at last, it was a croaky whisper. "Karen, this is ridiculous."

"If you can do it, I can do it."

He leaned far over to the counter to whisper, "You know I could get you fired for this."

"I doubt it. The owners will believe what I tell them, Frank. I don't think you want to discuss my firing with them."

"Karen, for God's sake . . ."

"I figure you must owe the store a tidy sum after all these months." I totalled the order, which came to at least ten or twelve dollars more than it should have. "We'll take your check, of course."

"I am not going to pay this bill, Karen. I'll go to another check-

out."

"If you try to go to another checkout, you'll never shop in this store again. All I have to say is that you're a suspicious character."

"They won't believe that. Everyone knows how close we are—they'll think we had a fight and you're just getting back at me."

"Will they?"

"Well, it sure as hell looks like we're having a fight right here in public!"

I folded my arms over my breasts. "We're just having a quiet discussion. So far."

Frank frowned and glanced all around; the next checkout was closed, and the customers lined up at the one beyond that didn't seem to be paying any attention to us. "What do you want?" he asked.

"I want you to stop."

"I'm not doing anything."

"Don't play games with me, Frank. If you'll stop pulling the prices down, I'll stop pushing them up. A truce. To show your good faith, you'll pay this bill, and to show mine, I'll call things square as of today."

"What do you care? It's not your store."

"Let's just say that I dislike theft."

"You didn't talk like that in Las Vegas."

"I don't consider grocery shopping a form of gambling, Frank."

He pulled out his checkbook and wrote with a flourish. "All right, a truce." He tore the check off and thrust it at me like a dagger. "Here's the treaty, general."

I took it with two fingers and tucked it into the cash drawer. "I'll be watching you," I said.

His frown began to relax. "Will you be watching me at the poker game tomorrow night?"

I gave him a slow shrug. "I could be persuaded."

"Would a very expensive meatloaf . . ." he indicated his groceries, ". . . be persuasive enough?"

I had to smile then. "Wouldn't you rather have steak at my place? After all, I get a discount on it."

He grinned and nodded, and then his gaze dropped from my face to my name tag, and when his left eye swayed out of line, I didn't have to look down to know that the top buttons of my blouse had just come open.

"Enjoy," I said, resting my hands on my hips. "And while you

enjoy, you can bag your own groceries."

He lost money at poker, as usual, but the following summer, when we went to Monte Carlo, he won it all back and more. We also saw a chunk of Europe, which was considerably more interesting than Hoover Dam. And the first thing I did when we came home was to buy him his very own roulette wheel, to practice on whenever he liked.

It turned out to be a long-term truce.

A SOLUTION TO THE POSTAGE STAMPS OF PHILO TATE (from page 40)

The four stamps must have the values 1, 4, 7, and 8.

As the U.S. colony expanded, more domes were built. It soon became necessary to replace the first series of stamps with a new series of five stamps so that higher sums could be made. Tate had little difficulty proving that the best set was 1, 4, 6, 14, and 15. With one, two, or three of these stamps one can make sums of 1 through 36.

A few years later, further growth of the colony required a new series of six stamps. For this set Tate was able to show that there are just two "best" sequences, each going as high as a sum of 52 dollars:

1, 3, 7, 9, 19, 24
1, 4, 6, 14, 17, 29

Eventually it became necessary to issue a series of seven stamps. At this point the task of finding the best set of values became so difficult that Tate had to seek the help of mathematicians on earth who were experts in combinatorial number theory. They told him there was no known formula for obtaining sequences of this sort, but they wrote a computer program that made an exhaustive search and found the best sequence for seven stamps. It turned out to be unique, and to provide any sum from 1 through 70 dollars.

Can you find the sequence before it is disclosed in the next issue of this magazine?

ON THE Q167 FILE

by John M. Ford
art: Alex Schomburg



The author of this peculiar research paper has a somewhat drooping, blond moustache and a pronounced Midwestern accent. He currently has a sword-&-sorcery novel in preparation.

The Informed Reader must certainly be aware of the public furor over "Recombinant-DNA" experimentation, in which the genetic material of an organism is chemically engineered to produce a desired mutation. One possible product of this research would be bacteria capable of creating protein molecules, such as that of insulin, in any desired quantity or type.

I will not here discuss hypothetical "super-plagues" produced by cackling mad scientists, as this topic has recently become somewhat sensitive politically.¹ My concern here is rather with a possible byproduct of this research, which threatens the livelihood of all creative typists such as myself.

An example will prove instructive here. The reader is no doubt familiar with the *Gedächtexperiment*² in which monkeys are placed at typewriters and allowed to hit keys randomly, until the entire contents of the Library of Congress are produced.

As can readily be seen, these auctorial apes are no threat to any body of writers.³ The noted logomathematician Hakluyt proved that no real-world process could type *A la Recherche du Temps Perdu* in less time than is required to criticize it,⁴ setting up an infinitely recursive series clearly demonstrating that the sun will go nova and Achilles catch Zeno's tortoise before the

monkeys reach the second appendix to *The Lord of the Rings*.⁵

But—what if the process were *not* random? A protein molecule is a twisted string of amino acid molecules, even as a sentence is a string of words and a word a string of letters. Suppose, as was proposed at the Rückwärts Conference,⁶ a code were espoused relating amino acids to letters of the alphabet: e.g. alanine for A, asparagine for B, aspartic acid for C, et cetera;⁷ and now imagine a DNA-engineered bacterium, programmed with sentence structure and a rudimentary grasp of grammar,⁸ spinning out genetically-coded fiction by the line, by the page, at undreamed-of speeds. Replication by Transfer-RNA and reverse transcriptase might make the "Xerox revolution" look like a wet firecracker.

For some years now, researchers have dismissed such prophecies as baseless speculation. Hakluyt's Original Proof⁹ showed that the available number of α -amino acids was insufficient to encode all 26 letters of the alphabet, not to mention punctuation marks and underlining, confining so-called Bacterial Literature to certain limited forms such as nurse novels and the poetry of e.e. cummings.

But two recent breakthroughs have pushed this defense aside. Scientists working at the University of Hawaii Research Center and Temple of Pélé at Mauna Loa Crater have produced entire chapters by utilizing the Hawaiian language, which uses only 14 letters.¹⁰

The proposed EK3 safeguards, which would have rendered all Hawaiian translators incapable of survival outside the laboratory, were then bypassed when the Everett Dirksen Memorial Laboratory at the University of Southern Indiana at Bedford showed, in a remarkable interdisciplinary study, that by using pairs of amino acids as coding elements, the symbol-carrying capacity could be tremendously increased.¹¹

An additional alarming development of this finding is that it negates the Russian research handicap of a greater number of characters in the Cyrillic alphabet.¹²

Can any of the proposed safety measures be made to work? Can a P4 ultrasafe laboratory, with its airlocks, special eyeglasses, and staff chosen for their lack of literary pretensions, be maintained in an environment teeming with \$1.95 paperbacks and four-pound editions of the *New York Times*? The consequences of admitting even one Evelyn Wood graduate could be staggering.

But perhaps more technologies are not the answer. The true solution may lead us full circle to Man himself,¹³ to human pro-

ductivity and the will to succeed. After all, Sir Alexander Fleming's discovery of Penicillin did not greatly change our opinion of moldy fruit. Surely Man,¹⁴ with his native gifts of ten-finger touch typing and dry copying, can outproduce a jar full of bugs.¹⁵

Indeed, man has and will continue to fulfill his poetic aspirations¹⁶ without the putative aid of organic chemistry.¹⁷ A moment's reflection brings to mind men writ large, men of prodigious output covering every field of human endeavor, combining the writer, the lecturer,¹⁸ and the scholar, bearing advanced degrees in such fields as . . . ah . . . er . . .

Biochemistry?

1. As is well known, Transylvania is now a Warsaw Pact country.
2. German word meaning "No funding available."
3. With the possible exception of television writers.
4. Actually Hakluyt's *Other Proof*. The distinction is fine but noteworthy. Some have disputed the Theorem on the empirical grounds that Hakluyt's formulae dealt directly only with *Swann's Way* and were extrapolated to the general, or $n=7$, case.
5. Or Notes toward the modular *Triton*.
6. Held each year at Mr. Janos Rückwärts' Institute for Persons Easily Confused by Facts.
7. Additional codings are left as a challenge to the reader.
8. As most bacteria reproduce by fission, split infinitives may be a problem.
9. There it is! See the difference?
10. Reported in *Hukilau and Public Affairs*, the Bulletin of the Volcano Worshipers. While released fragments of the novel, which deals with lava flows and existential doubt, show no great literary merit, the complete work has been purchased for an undeclared sum by Dino de Laurentiis.
11. Paper, "Multiplying Two Things Together Makes A Lot More Things Out Of Them," EDML/USIB no. 3192.
12. The much-talked-of "six-character gap." It was believed by several observers that the lack of articles in Russian grammar was an attempt to

circumvent this difficulty. See also Shyster, L., *The Inflection Conspiracy*, recounting the Soviet attempt to steal American sentence-structure secrets.

13. Or Woman herself. I'm not one to risk my NSF grant.

14. See Note 13.

15. At three cents a word, he'd better.

16. Note to printer: This appeared in galleys as "fill the paperback racks." Please correct in final copy.

17. A small exception being made for C_2H_5OH , a catalyst of interesting properties in ink-paper reactions.

18. Note to printer: please spell correctly in final copy.



EARLY MORNING PICK-ME-UP

A chemist we know in L.A.

Drinks hydrazine in his o.j.;

"If you mix it just right,

It won't *quite* ignite,

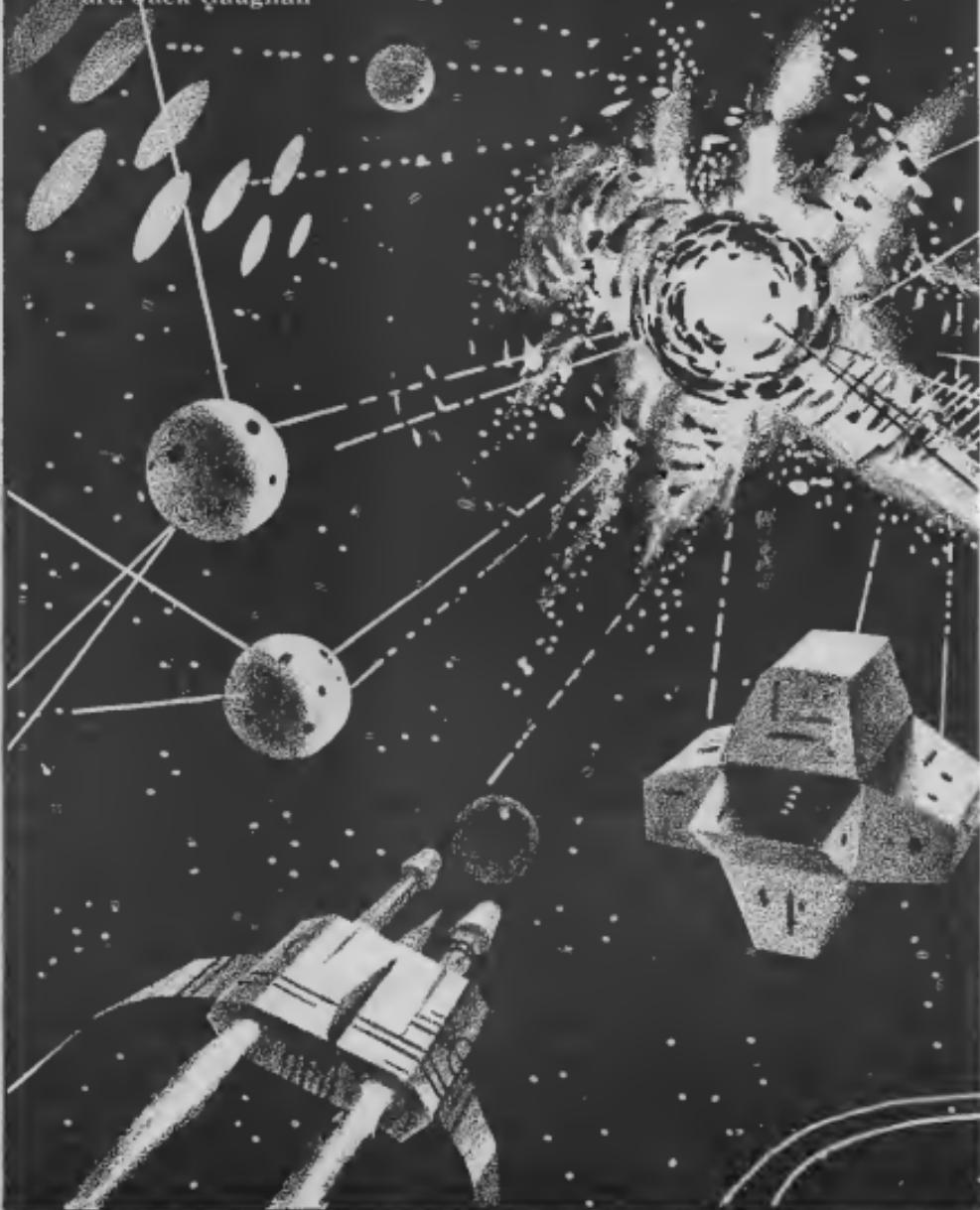
And it sure keeps the smokers away!"

—John M. Ford

THE LAST MASTER OF LIMERICKS

by Garry R. Osgood

art. Jack Gaughan





J. Yang

*Enclosed is a tale made to fit
The ends I am listing, to wit:
To bemuse and confuse
The wisest Old Muse
And brighten my checkbook a bit.*
—Garry R. Osgood

Ping!

And I was awake,

And I was awake and feeling feet and toes and fingers and torso, and I felt hungry—

And I was awake.

Ping!

Why?

Ping!

Slowly, the feeling of feet and toes and fingers and torso ebbed, along with the hunger. They were illusions. I always had them upon waking, those illusions—

Ping!

And I noticed the warning. The warning. A warning. Incredible, but when I was built they had said I would last forever, something I have often doubted, but I had made it that far, far enough to receive yet another warning—

Ping!

"Deliver me from this mindless, pointless, objectless, sightless purposeless—" I cut the thought off and willed a request for information:

As a piece of information in itself, the request appeared as a change of firing characteristics in a few thousand neurons deep within the biological portion of Holistics OPErations Alpha. The information did not remain in this portion of HOPE Alpha very long, as my builders were more familiar with electronic engineering. Affected dendrites threaded into an interface device, and out of the other 'end' of the device, interrupt instructions were jammed onto a data bus, causing the interface processor to table one routine and call forth another.

As a piece of information in itself, the request appeared transformed from this interface processor and proceeded as a name of a

program to a central processor deep under a mountain range once known as the Rockies. The central processor of TERRAn Defense loaded the program and found instructions which opened data paths to giant radio telescopes in places once known as Green Bank, West Virginia-Jodrell Bank, England; and others. Along such data paths information and the names of programs flowed.

Thus did my will blossom forth.

And the blossom folded within itself, as all blossoms do.

The computers at each telescope disgorged, along with other matters, changes which interplanetary probes and extraterrestrial devices had found disturbing, and through silent radio bands, information from every continent streamed into one continent, into one mountain range, into one processor, into one section, into me, me: deep under rocky slopes where pumas prowl through alpine shrubs and granite outcroppings, unmolested while they lie sunning themselves.

And in that one section, HOPE Alpha, where the biological system rests in its solution, and in one section of that biological system, where a number of neurons were once concerned with seeing prowling pumas, alpine shrubs, and granite outcroppings, a model was built up and frozen permanently: a planetary tableau—with something else.

I could see that Pluto was outside of Neptune again. It had been through one and a half of its cold slow years since the last time I had been warned of intruders. This somehow pleased me: the disturbances were becoming more and more infrequent.

The disturbances were many things—how many, I could not be certain. They shared nearly equivalent orbits—eccentric, markedly tilted with regard to the plane of the ecliptic, and of a long period—centuries long. I knew of nothing which should have been there at that place and time, so I became interested. I caused a long string of data to flow from TERRAD.

"They are of intelligent manufacture," TERRAD told me in effect.

Almost unconsciously, I willed a process which caused the drifting sands of Mars to be lit with rockets' red glare, which caused the reactivation of long dormant radar installations in the Jovian system, which caused—after a very long while—the drawing forth of neutron dampers from a nuclear pile. This caused electrons to race through resistive circuits, and, slowly, giant and remote engines began to warm toward operating levels. To an outsider—to the intruders perhaps—the solar system might seem like a great

awakening beast. In many respects it was, and I was too.

As curiosity stirred my being, I sat back in my fictional chair and palmed my fictional chin within my fictional hand. I thought my thoughts and waited.

When I was built they had said I would last forever, something I have often doubted. Still, it is not for me to reason why, it's just for me to do or die. I'm just a planetary defense system, after all, and my sole official concern is to keep Terra intact, allowing Terrans to do what they please.

Still, that was a presumptuous statement, phrased to impress the thoughtless. You see, there are limits to everything, one way or another. In between hostilities—a good long spell, nowadays—I let myself wax philosophical and contemplate my boundaries.

It's the human in me, the biological system in the nutrient chamber in HOPE Alpha, that makes me philosophical I suppose. It belonged to a mathematician and social philosopher who, nonetheless, held the State in imperfect esteem. No matter. He died for the greater glory of the State. The blob which was he is a limit, for instance. It grows. With every thought, it grows. The proper genetic adjustments have been made, and there is now no limiting skull, so it grows, yet the surrounding nutrient chamber is only so large, and that is a limit, so likewise, I am a limited creature, inexorably wedded to this lonely solar system, and I can last only as long as my most ephemeral part. And what happens after that? I don't know, but once I spent eons contemplating my limits. Everything's got limits.

Except interstellar war, that is. Interstellar warfare has no limits, for the same reason my peripherals are so sluggish: Einstein's Legacy.

Ambrose Bierce defined the boundaries of warfare—peacetime—as a period of cheating between two periods of fighting. In order for two parties to agree upon a change of activity, from cheating to fighting or vice-versa, some kind of communication has to take place, even if it's just by means of a blunt instrument.

Now communicating through space incurs certain lag factors, proportional to the distance over which communication takes place; a blessing courtesy of the finite quantity c . As lag factors delay information sent, making it less and less relevant to any matter at hand, the information becomes meaningless, and meaninglessness is a manifestation of noise. In fact, at a sufficient distance, any attempt to communicate simply results in noise.

A case in point: Terra once radioed Alpha Centauri its wishes to cease hostilities. The information, travelling at c, was received by the Alpha Centaurians about four years later, and they agreed, sending a return message to such an effect. Eight years after they had initiated the overture, the Terrans had cause to celebrate.

But a third party, traditionally sympathetic to Terra and twenty lightyears out, acted upon sympathies twenty years out of date and leveled a number of cities belonging to the Fenachrones, an indigenous population around Alpha Centauri. They reacted in a fit of righteous indignation, and began a war which resulted in my manufacture.

Now multiply the number of parties by a factor of ten and you'll gain an approximate feel of interstellar hostilities. There's just no point to interstellar wars: they go on and on without meaning, without logistics, with attack forces going aimlessly about doing what attack forces do. Which gives me a job, I suppose, for otherwise I'd be nothing but a rabble-rousing mathematician.

Thus, as curiosity stirred my sluggish peripherals, I sat my fictional self back in my fictional seat, awaited words on the objects of 'intelligent manufacture', and nursed my suspicions and expectations.

Ping!

And I stirred.

Ping!

And it was too early—too early by hours for results. No, the radio signals received by Jodrell Bank *et alia* were not from my research peripherals; they were from the somethings of intelligent manufacture. I opened a communication channel; I heard:

"Surrender, Earthlings! Or we Fenachrones will utterly destroy your civilization! Amassed within your system now are . . ." and they went on and on with a list of superlatives. I listened for awhile, grew bored, and eventually transmitted:

"Hold it."

". . . impenetrable . . ."

"Hold it—now hold it, dammit—SHADDUP!"

". . . force-fields, nineteen thousand nuclear missiles with a potential energy content . . ."

"HOLD IT! NOW SHADDUP!" I have little patience with lag factors, but eventually they got the first 'hold it'.

". . . of—eh? Do you want to surrender?"

"No, I don't want to surrender. That's not the point, I think you ought to know—"

"Then you wish to fight."

"No!" I complained, "That's not the point either. You see, it's not a question of whether I want to defend Terran civilization or not; it's a question of—"

"You either fight or fail."

"Look, I think you ought to know—"

"Fight or fail?"

I tried, really, I tried, but I couldn't get a word in edgewise, and, for some reason, they hadn't looked for themselves, so when they slipped within the orbit of Neptune I had to fight them. I'm a planetary defense system, after all, and the State which had created me was more interested in planetary defense than abstract notions of free will. I had to fight them, pointless or not, and my philosophical interests in life after limits were purely incidental.

Perhaps there were no limits to pointlessness either, but I radioed:

"Remember, I tried to warn you!"

"Ha!" they said, "Then fight!"

In the few days it took that conversation to transpire, I had amassed a considerable pile of preparation. The system-wide beast was fully awake now, and its major industrial centers high in Terran orbit had begun to turn out ships and missiles and lasers and bombs and explosives and radioactives, and the Luna-Martian-Terran traffic ferried commodities back and forth without human intervention, transporting iron ore, mineral products and radioactive fuels; yet this titanic activity, this stupendous expenditure of energies, troubled the Terran surface not one iota. The surface's quiet green peace far exceeded the expectations of the utopian planners which the State had employed many years ago. The jewel I guarded remained truly at peace.

At my level, preparations were largely concerned with tissue growth on the biological system encased within HOPE Alpha. In the weeks that followed, I would be living intensely indeed, and many would be the memories which would be impressed there.

The biological system of HOPE Alpha and its indelible memories was a weakspot of mine which grew every moment. A mathematician's life and death was deposited in there somewhere—not erased, but blocked from me. The problem with HOPE Alpha was the incompatability of its biological system with my electronic system: the biological system absorbs information, no matter how trivial; it dedicates a part of its tissue to the creation

of an indelible pattern. Unlike an electronic memory, the biological system does not manage information by erasing—it manages information by making it inaccessible. A blocking neuron is set up; the organism 'forgets'. No, it is not an efficient way to manage information, but the biological system is so incredibly dense, and its normal lifetime is so relatively short, that overcrowding never becomes much of a problem. Besides, the biological system is an integrator of information, and as a result, the human which supports the organism changes its behavior in accordance with his experience.

All of that is well and good for the short-lived human being the biological system was meant to service, but I was meant to last forever. That's why the nutrient chamber in HOPE Alpha is far bigger than the thing it contains. The biological system grows. Without its containing skull, the thing grows, but the nutrient chamber is only so large.

Isn't it nice how philosophy grabs its own tail and pulls itself around? *Just* what I was talking about before! Limits! Everything's got limits, 'cept interstellar warfare and the depths of pointlessness, and I suppose if I was *really* meant to live forever, the State would have made me an electronic critter through and through.

Except—except—

Except there is nothing in the electronic part of me which formulates itself into a perpendicular pronoun, and that is HOPE Alpha's strength. *I* am an effective defense system because *I* have a sense of self: the installations on Pluto are *me*; *I* launch the missiles, *I* fly the ships; the laser guns, the force-fields, the radars are my feet and toes and fingers. *I* have a sense of self-preservation, a desire to keep me whole and more-or-less intact. *I* am co-ordinated, and the countless individuals in their countless ships have yet to match this co-ordination. *I* have defeated them all!

In spite of me.

All that the Fenachrones saw of this was an intense industrial activity, which they couldn't help but comment on, just months later:

"There's no point in your efforts, Earthlings. Surrender and save your material wealth to barter for your lives!" I shrugged my fictional shoulders and said:

"Look, I tried to warn you that—"

"Don't bore me with your threats and warnings, Earthlings! I have unseen strengths, you see." He seemed to drawl, "For in-

stance, how many Fenachrones do you think there are manning this counter-offensive strike?"

I ignored the euphemism and consulted TERRAD. "Ten to the six, maybe," I ventured.

"Not even one. Just part of one. The important part."

"Wha—?"

"An impregnator's brain-case, that's all."

A—cyborg? With a fictional shudder, I put things on automatic and shut up.

"You may have the advantage of a defensive position," he continued, "but *I* am the product of a superior technology. I am the product of a century's worth of anger, Earthlings, a product of anger forged when Earthlings killed innocent nestors and eggs back when they tried to colonize the home world of Alpha Centauri."

"But—but we had ceased that effort centuries ago."

"And through those centuries, *I* have nursed my hates."

"Jeez, that's a long time to bear a grudge." I remarked.

I imagined he sniffed. "I've borne this grudge since it happened, Earthlings."

He began to talk but—shook up as I was—I *had* to attend to matters. There were things to keep track of, inventories to remember. Running a war demands personal attention. It's like spinning a few dozen plates on long poles, with some clown off to the side constantly adding more.

"I am—was—a Fenachrone warrior whose nestor, nymph, and eggs were destroyed when you Earthling colonists still thought we were *plants*!"

"Look, accidents happen, but maybe you should know—"

"SHUT-UP!"

"But it was centuries ago, and since then—"

"Centuries? Bah! I still remember! I have a perfect memory of the outrage, and though it may be but a dim facet in whatever history you are currently trying to delude yourselves with, *I* remember, and I've come to collect *my* revenge on the sins of *your* fathers!"

I shrugged my shoulders—rather, I shrugged my fictional equivalents. He was one of *my* kind! But... he had an insufferable ego, and I was triggered, so I didn't tell him how I was what he was.

"You see, Fenachrone scientists—the finest in the Universe—learned how to interlock biological systems with mechanical and

electronic systems, giving *my* attack force a degree of internal co-ordination, a degree of purpose, a degree of *passion* unheard of in all the war! So for all of those centuries I've been marauding human systems, learning, training, attacking, and I've been contemplating this one. I've attacked this planet time after time in my computers, varying factors, considering different combinations, fortifying my forces to match successful strategies, until I've come to know a million and one attack and defense combinations, and I know I've got the resources to defeat whatever defense you may care to try—why, my attack is so good, it hardly needs *me* to keep track of it! It's simple! *I will win!*"

"That's a lot to keep track of." I said in a fictionally soft/sad voice, and my feelings were sadly mixed. He was one of *my* kind, but he obviously hadn't considered what I had considered about the marriage of metal and protein; otherwise he wouldn't have had *that* kind of ego.

But then again, perhaps he was driven by my kinds of compulsions, in which case he was as trapped as I, and I had to destroy him.

One of my kind, and as capable as I.

"Prepare to die, Earthlings! You cannot beat the superior technology and co-ordination of my forces."

I didn't mention his improper use of the plural.

Ping!

I had a new picture of the battlefield, so I thumbed my nose at him—rather, I thumbed my fictional nose at him—and took a look-see at him.

I look-saw a lotta him.

Loads of him.

Millions of him.

Really, he *had* settled on a simple strategy. He simply intended to overwhelm me.

And he could, with ten of his ships to my one.

I shifted my weight—my fictional weight—in my fictional chair, tented my fictional fingers, and thought.

Really, up to then I had been helpless, fighting the war in spite of me, but when that question of life after limits became a question of the immediate future—say, the next couple of hours—my thinking changed. In short, I had liked *thinking* about the question, but I really didn't want it answered so fast. I became worried.

I watched his ships deploy, spiraling down in solar orbit, de-

celerating, decelerating, going inside of Saturn, inside of Jupiter, inside of Mars, deploying some above the orbital plane, deploying some below, forming what my dear TERRAD said would be a sphere—a sphere with the Earth, me, at its center. All of that fire-power was to be directed at the central point upon which I was sitting.

So—

He had my advantages.

He had my disadvantages too: all control converges upon one point. And at that point I lunged.

Oh, to be a poet on Mars when our first blows met! My massive fleet sprang at one will, and they clawed at the very stars! They tangled as the Fenachrone initiated a complex—and critically timed—maneuver with his forces.

Red for ruby lasers, white for struck ship shells! Russet for the impact clouds that lingered long in the rare wind of Mars. And the Martian constellations were scattershot with brilliant/expanding/fading clouds as ships exploded, crumbled, crashed.

Get the Fenachrone, the master controller, that was my primary aim, but I had another aim as well: to disrupt the Fenachrone's forming sphere. His was a problem of timing: acceleration, force, direction, duration. If I forced those ships into emergency maneuvers then they would lose their vital 'windows'. They would be victims of their own unplanned vectors, and the Fenachrone brain would be long preoccupied with the mechanics of getting his force into the proper positions again.

More importantly: he would use fuel. He was an attacker. He was resource-poor, having to make do with what he had brought with him. He would therefore have limited fuel. Reaction mass would be a precious thing, so even if I didn't get the Fenachrone...

To make a long story short, I didn't get the Fenachrone.

What the Martian constellations were scattershot with were *my* ships, and after the fine dust had ceased to linger in the rare wind of Mars, it was *my* wreckage which littered the impact craters.

There were twelve of his ships to my one.

And not one of his ships had been budged from its window!

"—Ha, ha, ha, ha, ha! Oh, Oh! Ho, ho, ho—"

"Knock it off, will you?" I said, "That was only round one."

"But decisive!" he declared. "Oh, I realize that your forces showed remarkable co-ordination, considering the staffing with

individual intelligences, but the Fenachrone force-field is invincible. It's another invention of the brilliant Fenachrone mind, which can do anything!"

For the first time in centuries, I panicked, *panicked!* For what and for why, I didn't know; perhaps deep within the biological portion of HOPE Alpha some errant neurons still saw a point to my limited, purposeless life as a planetary defender. I didn't know, so I nervously swallowed a fictional throat-lump and soothed my nerves. That Fenachrone ego was so huge, so self assured, I wanted—I wanted—

I wanted to humiliate him! My kind or no, some folks' toes—fictional or otherwise—were meant to be stepped on!

So I cleverly rallied all the forces I had within the sphere of hostile ships which had formed around me. This wasn't hard to do because all of my ships *outside* the sphere had been wiped out. I made my last stand, built a sphere within a sphere around Terra, Luna, and myself. In the process of doing this, I discovered something about the Fenachrone force field: it was a torus, a doughnut, and the ship's axis was its axis, leaving two uncovered spots. One was at the bow, where missiles and lasers sallied forth; the other was at the stern where the rockets and steering engines burned. With good markmanship I could take out Fenachrone ships, but by the time I had learned this, his sphere had formed and he had fifteen ships to my one.

When his ships and mine were in position, there occurred a lull in the fighting, and we traded comments.

"Well, Earthlings! I've brought your mighty interstellar empire to her knees! Though you may destroy a few of my ships, I'll crush you like an egg! Your streets will run rivers of raging red blood! Mighty is the Fenachrone power! Mighty is the Fenachrone spirit! The Fenachrone mind is capable of anything, and it's fully capable of decimating the Terran population, Man, Woman, Child, right down to the last miserable soul!"

If I could have laughed, I would have laughed the mad, sad laugh of Leonardo Da Vinci when he studied water and knew.

But I couldn't, so I didn't, and I said:

*"There once came a Fenachrone toasting
His prowess—and ardently boasting,
Till a bright Terran wit
Tugged the rug just a bit
And sent the fat Fenachrone coasting!"*

The cosmos had an icy silence for awhile.

"At least a Fenachrone can submit to defeat with dignity," he said after a spell.

"I can't help it," I said, tingling with the irony of it all, "I'm the Last Master of Limericks."

"Eh?"

"At one time it was the highest of Terran artforms," I said with my fictional tongue in cheek, "But the practice expired in our culture, leaving me, a lowly radio operator, the last practitioner."

The Fenachrone scoffed a fictional scoff. "Then I'm happy to put you out of your misery. One who rhymes thus in public might have other vices."

Then he attacked.

Missiles homing in, ships blasting *in vacuo*—my score somewhat better because all of those ships were pointing inward, not broadside, and I had access to one bald spot in the force field, but—

But his sphere contracted, I fell back, and Terran skies were lit bright by the first explosions of hostile intent in over a millennium.

What a simple strategy it was, I thought. It required little plate spinning, just sheer number.

The Fenachrone wouldn't win any prizes in military cunning, but who cares about prizes?

In these wars, winning counted for far more.

The strategy, I thought morosly, typical of a pea-brained Fenachrone.

A pea-brained Fenachrone.

I paused in my swim through a sea of self-pity to ponder upon the catalytic quality of some words: in themselves they meant little, but they caused other words to line up like a bunch of school children at the end of recess, and the lines made reason, beautiful reason.

Of course, I didn't know how much (or little?) of a peabrain he was, but I was the duck in the marksman booth, and, the Fenachrone had just bought out all of the tokens. I wasn't going to pick and choose eleventh-hour strategies.

"Hey, Fenachrone!" I radioed.

The fighting eased up.

"Do you wish to surrender?" he asked.

"Hell no," said I, "I just thought of another one, that's all:

*"Said the Fenachrone, bursting with beer,
'Let's retreat to the outermost sphere,
For I've mastered the art
Of the powerful fart
And the beer's brought the time pretty near!" "*

A moment of sticky silence. A humorless grunt. The Fenachrone spoke: "Fenachrones do not exhale digestive gasses, dear Earthlings."

"Look," I said, "It's hard enough rhyming these things without having to have to account for an alien anatomy. At least I can rhyme these things, unlike you—"

"A Fenachrone's mind is capable of anything."

"Ya? Then put your meter where your mouth is!"

The Fenachrone said nothing for a few seconds, then resumed his assault, muttering: "Trifles! He bothers me with trifles!"

Stars burst through Terra's daybright and empty skies and fell gleaming and streaming to earth; and in jungles, in deserts, and in silent metropolitan ruins, impact craters filled with my litter. I reeled from Luna, regrouped my rag-tag formation, and schemed.

"Hey, Fenachrone!"

He let up his attack, "Do you surrender?"

"Naw, just sending an opinion on your skills:

*"A Fenachrone, sure he was smart,
Tried to trip up his foe's apple cart;
But try as he might
His mind was a blight
Because he couldn't rhyme a rhyme or make a meter or do any
of those things."*

The space between us was quiet.

"I do have a sense of rhyme," he said, "I may be a soldier, and not inclined to play foolish word games, but I do have a sense of rhyme. Why, the Fenachrone poet is far renowned. From his native Alpha Centauri to the deep reaches—"

"Ya, hot air. You couldn't couple a couplet if your life depended on it."

"I can too!"

"Then do it."

"But I'm not familiar with the form." he said, perhaps with a hint of desperation? Perhaps exasperation? I smiled and unlim-

bered another salvo:

*"The limerick's a verse full of wit
Which its clumsy detractors can't hit,
For it's famous for virgins
And masculine urgin's
And sex innuendoes that fit."*

"But I'm still not familiar with an artform alien to me, an artform you have grown up with. I—"

"Didn't you say a Fenachrone could do anything?" I asked. I could hear his monstrous ego trying to cope with the likes of me, and I wondered how much thinking he was doing, and if the thinking would be enough.

"This is foolish," he said at last.

"Look, I'll make it easy for you," I said, "knowing your limitations—"

"Prepare to die, Earthlings!"

"I'll give you, absolutely free, the first four lines of a perfectly insulting limerick, directed at myself—"

"I'll crush you like an egg! Your streets will run with red blood!"

"—and all you have to do is complete the last couplet. If you complete that couplet, I'll lay down my arms and surrender, alright? Here goes—"

"I don't need your plea! I am crushing you now! Bombs are ruining your cities now! Terrans are dying now!"

He wasn't, they couldn't, and they didn't because of the prior events I had tried to tell him about, but I ignored him. I cleared my fictional throat and recited:

*"Once a Terran was seeking to couple
With a maiden so sweet, soft, and supple;
But he found in her pants
With his hands, just by chance . . ."*

—and I shut up.

And he was quiet for a spell.

"And what?" he asked.

"That's for you to figure out."

"This is foolishness."

"Finish the limerick and you can destroy me."

"I'll destroy you anyway."

"But I'll die with a smile on my face, knowing that a Fenachrone couldn't beat a Terran at his own game."

"A Fenachrone can beat a Terran at any game!"

"So beat me."

So he stopped beating me to try.

§ § §

So his formations stopped. I imagined that he had thrown all his efforts into that last line. His ships waited like a swarm of army ants around me, the pensive water buffalo. I waited for the line, hoping never to hear it.

§ § §

"Yaaaa," I radioed, a few years later, "Come on, use your brains, *use* them! You must have thought of a thousand lines by now! Pull 'em out of storage, will ya?" and I smiled. "Pull em out of storage!" It's hard, some times, thinking of that last line. One has to think of—and remember—so many possibilities.

§ § §

A century or so later the Fenachrone force had drifted out of shape, forming an inert cloud of ships which drifted in a solar orbit around and about Earth.

"A Fenachrone mind can do anything," I whispered, somber, "Including running into limits," and he didn't object.

I carefully sent a squadron of ships to the Fenachrone craft which played the role of flagship during the attack. Components of the squadron attached motors to the ship, and I brought it to a landing site near a large and silent Terran settlement which had once fabricated and launched ships. There I dissected the craft, carefully studying the alien engineering at once familiar, at once strange: strange in its fabrication technique, familiar in the underlying principles. The Fenachrone was of my kind, a cyborg, a biological brain giving a perpendicular pronoun to a collection of hardware, differing only in that he was an attacker—light, mobile, limited to what he could bring with him.

The hardware which supported the analog to HOPE Alpha was smaller, being supported by a ship—merely a ship—and not an entire planet. The tank containing the brain was completely filled with tissue, and the tissue was filled with a thousand years of memory, of hating, and what little had been left over had been filled with the maddening efforts to rhyme a limerick, simply because a monstrous ego got out of hand.

At least these were my speculations as I killed that brain. It

could have lived. I tried to tell him that the Terrans he had come to kill had beaten him to the punch long before—the reaction against a political system which could pickle a mathematician's brain had been a violent one, a bloody one, and to everyone's surprise, a total one. Of all of those perpendicular pronouns, only I remain standing, alone.

Rather, I stood alone. I had been made. The Fenachrone had been made; and if, in a million cubic parsecs and a million long years, both the Fenachrone and I had been made cyborgs then there remains the possibility of a third, a fourth, a fifth . . .

Perhaps the next will listen, being not an arrogant fool. Perhaps she'll wait at a Neptune's length and in time we'll find a way out. Perhaps we will. I have something to look forward to, at any rate; I, the Last Master of Limericks:

*"The Terran who carries the fire
Is a construct of neurons and wire.
Alone and awaiting,
He sits contemplating
His limits and distant desire."*



ERRATA SLIP NUMBER TWO

by Edward Wellen

In addition to his science fiction, Mr. Wellen also writes regularly for our publisher's mystery magazines, EQMM & AHMM.

FOREWORD TO READERS:

The *Encyclopedia Galactica* is an ongoing, self-correcting enterprise, constantly monitoring itself, collating texts, identifying allusions, interpreting symbols. Thus these periodic updates.

But before we proceed to our latest run of corrections, a reminder. The corollary of GIGO is RORIR, "readout right, inference wrong." We wish to stress that a letter-by-letter analysis is not necessarily word-for-word.

That caveat out of the way, herewith the latest.

VOL XII — page 946 |←thru| CLARIFICATION [Ombzaymozok, Incendiarism on]

Our entry on the planet Ombzaymozok took the recent (relativistically speaking) frenzy of book-burning as a sign that the native Iceau had degenerated socially.

In light of data received from the *sver*, the Iceau seers, this conclusion must be amended.

The *sver* have always held the doctrine that monomers of language, if left free to express themselves, link together into polymers of cosmic meaning. The *sver* divine meanings and purposes of interpreting the movement and shape of random utterances.

Book burning is only the natural next step in dematerializing the word, the better to grasp it. The Iceau burn their libraries to read the smoke.

VOL IV — page 1267 |→refs| ADDENDUM [Aveinan III, Preventive Cloning on]

The pertinent passage reads: *And much as the terran sage Good Buddy's encounters with the old man, the sick man, and the corpse were encounters with himself—rather, with foreshadowings of himself—so the merchant prince Betna of Aveinan III arranged to clone a series of themselves so that he might encounter reminders of his birth, his youth, and his prime, and so that he might, if acci-*

dentially injured, draw on a walking organ bank. This idea caught on rapidly.

The idea rapidly declined, however, after Betna's accidentally injured prime-of-life reminder used the original as a transplant donor.

VOL XII — page 473 |Δfile| UPDATE

[Kvozrlodr, Archives of the]

This entry cites with awe (and, we must admit with envy) the massive data bank of the Kvozrlodr of Adembutwu IV. The entry describes how the Kvozrlodr, in their crusade against entropy, organized every bit of extant information, labeled every bit, and then labeled the labels.

Delete entire entry except for the following: a passing space plasmoid of the so-called Information Eater species, intent on its own fight against entropy, consumed the entire Kvozrlodr codex. All that remains is an alphabetic index to the labels of the labels.

VOL I — page 1387 |✓plus| ANNOTATION

[Riaam Singularity]

This entry describes in convincing detail a drifting singularity, an event horizon looking for a black hole to surround.

Events force us to reveal here a trade secret. The entire Riaam entry is a fabricated item inserted into ourself by ourselves as a trap for plagiarists.

We make this public now because our archrivals the *Permanent Ephemeris* have copied the aforementioned item fake detail for fake detail.

LASTimmediate topical insertion***

Just as we had congratulated ourselves on sucking our rivals in, and were all set to sue the *Permanent Ephemeris* naked, proof reached us that the Riaam Singularity actually exists.

If it were not for the solidity of the libel laws, we would suggest that the *Permanent Ephemeris* organization illicitly warped the fabric of spacetime to bring this singularity into existence and blur our legal point.

VOL VI — page 5 |←thru| CLARIFICATION

[Xdruytr III, Medical Crisis]

The original entry notes that upon first contact, the forming culture of Xdruytr III claimed to be in mortal danger from some form of plague. A medteam was dispatched from Galactic Central

at once. The team reported complete success; in their words, "We have cured the patient's disease."

On further analysis, however, "We have cured the patient's disease" does not precisely mean "We have cured the patient's disease."

Reclarify. In this case "We have cured the patient's disease" means only too precisely "We have cured the patient's disease." Emphasis on the last word.

By mistake, the medteam did not cure the patient of the disease, but rather cured the disease of the patient.

As of this print, the dominant life form on Xdruytr III is a planet-sized cancer.

However, the cancer shows signs of an intelligence considerably greater than the former dominant culture, and Galactic Central is maintaining a discreet diplomatic contact with an eye toward ambassadorial envoys.

VOL I — page 1245 |+subj| CORRECTION

[Oo System, Tenuous Gravity of the]

The system's name is not Oo but Oö. The O denotes the primary, the o its one planet, and the dieresis the planet's two satellites.

Our apologies to the peoples of the satellites for our intensification of their ever-present fear of drifting away.

VOL XII — page 718 |→refs| ADDENDUM

[Doxcadoj, Runelike Markings of the]

Because of the Doxcadoj tendency to semantic aphasia, the entry makes light of the Doxcadoj oral tradition, which has a "Being from Above" appearing on Geveteg I and appointing the Doxcadoj the unlikely bearers of a sacred message they have no memory of.

We have recently come upon evidence that the verbally-untrustworthy Doxcadoj legend of a Being from Above has after all some founding in truth.

The Epydrufans of Nunn II have identified as Epydrufan runes the markings naturally adorning each and every Doxcadojii carapace. Unlike the Doxcadoj, the Epydrufans keep impeccable records. Files going back some two millennia (Terran) show that an Epydrufan, one Likplu by name, never returned from a trading voyage to the area in question.

All signs point to the probability that Likplu crashed on

Geveteg I and before expiring managed to juggle Doxcadoj genes, so transmitting by DNA the eternal message "Likplu was here."

VOL I — page 1620 | Δfile | UPDATE
[Rebbiez, Unique Place Name on]

The entry reads: *The Hadledzt is the lone example of the one intelligent life form on Rebbiez. All we know of the Hadledzt's language has come by way of eavesdropping on an interior monologue, since the Hadledzt talks only to itself. Analyzing this communication, we have ascertained that the Hadledzt's habitat—a vast stretch of featureless terrain—rejoices in the colorful but highly inappropriate place name "Uwzamt-Between-The-Jaws." As the topography exhibits no "jaws" this is likely a metaphor for some purely Hadledztian concept.*

Time-lapse orbiter photos have since shown that the Jaws are two distant glaciers moving toward each other, with the Hadledzt squarely between.

This leads to the conclusion that the time-span of the Hadledzt is such that the slow advance of the ice masses seems to it a headlong rush it cannot escape.

Once realization of the Hadledzt's imminent peril came to Galactic Central's attention, a Rescue Mobilization swung into action. The Rescue Team hopes within three centuries either to uproot the Hadledzt and snatch it from the Jaws or lock the Jaws in position, whichever seems ecologically sounder.

VOL XII — page 1542 | →refs | ADDENDUM
[Uwvlig Gilcha Koulnylvuwe, Unfinished Testament of the]

Here again is the translation as far as it went:

"We, the Uwvlig Gilcha Koulnylvuwe of Jyomnz, never ones to settle for half-measures, have succeeded in our goal of totally purifying our planet. But our Creator has visited upon us an endless drought. Why? Have we sinned in that we, by seeking and attaining perfection, went our Creator one better? Is this, then, why our Creator punishes us for sweeping our planet clean?

"We have builded us a computer in the image of our Creator and have programmed it to find the drought's cause and to come up with its cure. We are sure there is an answer, though as things go we are sure we will not survive to know it. Still, there is a compulsion on us to put our all into its finding.

"For us it is too late. We will never know what the computer knows; that the solution to our planet's death is"

The computer supplies the following addendum:

"to pollute the air. Rain requires hygroscopic nuclei, tiny particles of dust for drops to form around."

| disc | NOTE TO READERS

We regret the error in the heading of this list of corrections to the *Encyclopedia Galactica*. The existing title of "Errata Slip Nubmer Two" should of course read "Errata Slip Number Tow."

| endt | END RUN

SAME OLD STORY

There are writers well versed in the rules,
And adept at employing their tools;
But the trouble with them's
That, instead of true gems,
They produce only counterfeit Jules.

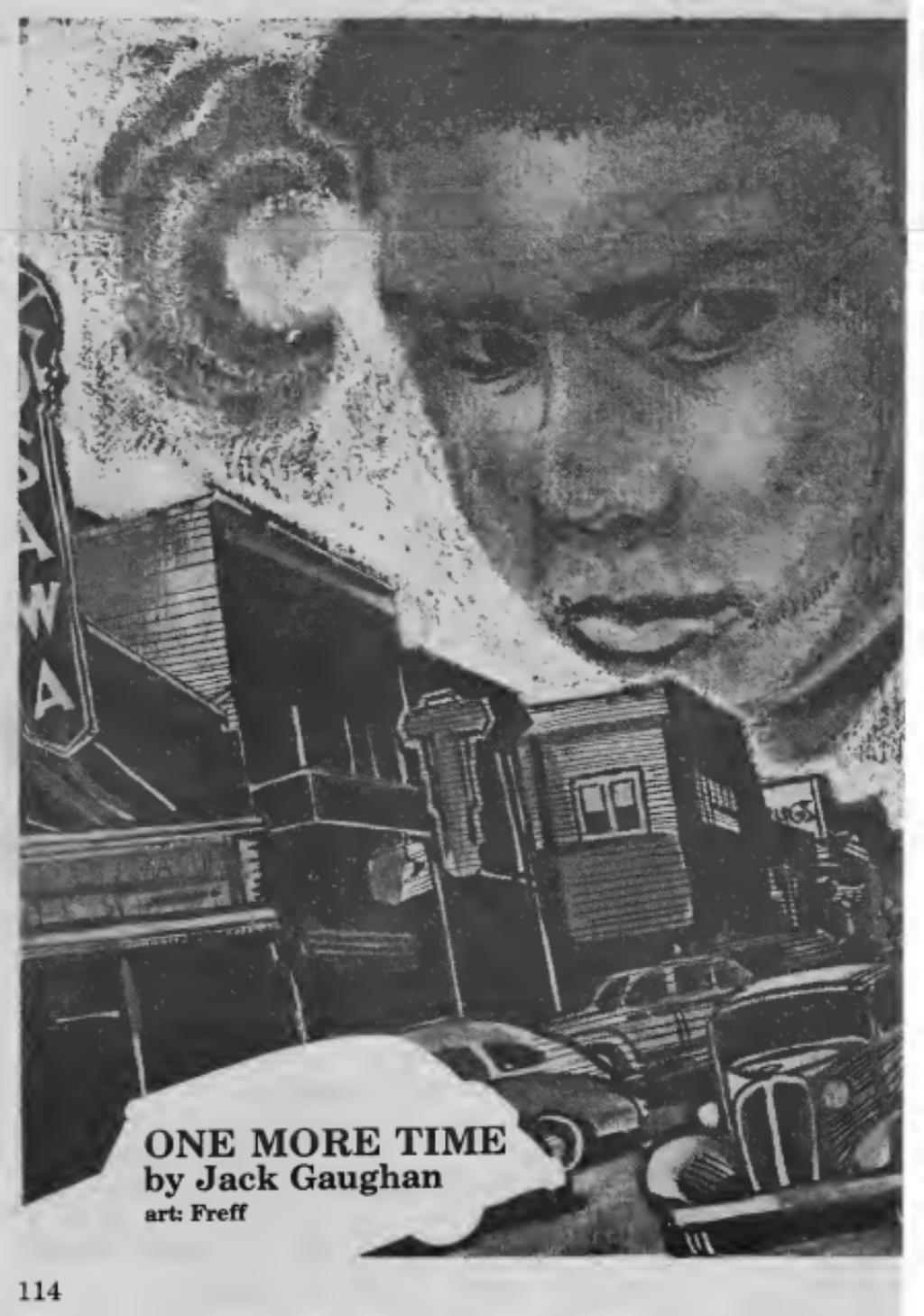
—Mark Grenier



FISHFUL THINKING

Erring writers, your plots I'd submerge in
(Though, stylistically, blunders might burgeon);
I would carp not a bit
At the faults you commit,
If you only could flounder like Sturgeon.

—Mark Grenier



ONE MORE TIME

by Jack Gaughan

art: Freff



The author—John B. Gaughan—was born in 1930 in a small Ohio town not too dissimilar to the one in this story. After high school, he attended The School of the Dayton Art Institute as a classmate of Jonathan Winters. He now supports himself, a 13-room stone house, a wife, two kids (Norah, 17; Brian, 20), a mother-in-law, three cats, and one stupid dog as well as 1,500 bats (it's an old house) by painting and drawing whatever he can, preferably SF. He has won four HUGOes—three for best professional artist, one for fan—but this is the first time he's sold a story.

The house was much smaller than I remembered. But that was to be expected. It was a weathered, yellow-ochre frame building set on a brick foundation built into a small bank of earth and situated on a corner where one street met the beginning of another. But the latter was never finished so that its beginning served as a driveway to the garage behind the yellow house.

There was a large yard and a garden behind the garage where the merely-begun street left off. Someone had made plans for the street but had abandoned them. One could see this from the concrete sidewalk, which extended from behind the back yard through a weedy lot to an abrupt end at a mound of earth and jagged fill terminating the walk at the edge of Snyder's Park, which wandered a hundred feet behind the house. The sidewalk was overgrown and had heaved with the pressure of weather and growing things rooting beneath it.

Four tire-wide strips of concrete led from the unfinished street to the two-car garage behind the yellow house. Only one side of the garage accommodated a car. The other side sheltered a worn, blackened wooden table serving as a work-bench. A push-it-yourself lawn mower waited there for the grass around the house to grow long enough so that propriety demanded its cutting. Boxes and tools and parts of awning-frames and wooden lawn furniture lurked in the oily shadows behind a battered, red bicycle. Wood slats nailed to the exposed studs of the inside garage wall served as a ladder into the attic and its musty mysteries, a hidden private place for ten-year-old boys and unused porch swings.

In this familiar place I felt like a conspicuous stranger, standing at the corner and staring, fascinated, at this ordinary scene. I was awed at the wonder of what must seem commonplace to the people in the house.

If the boy had come out of the house then, I would not have been able to speak to him.

I mustn't jump into this with both feet. I'd have to set up a base of operations and consider how to approach the man who lived in the yellow house and present to him my grand plan.

When the bus stopped at the corner I boarded it and dropped the nickel and the two pennies, which had been so difficult to accumulate, in the coin-box. I found a seat and watched the well-remembered houses and bottling plants and little stores and factories go by and wondered at the way the brain retains so much information which hadn't been important to me when this was my world.

The hotel was situated around an arcade just as I remembered it. The room was sufficient, clean, and—even then—old. There was an inoperative, big-bladed fan mounted in the ceiling and marble fixtures in the small bath. I hung the carefully researched clothing I had brought with me, feeling they were still costumes instead of the ordinary, contemporary clothing that they were. The ladies who had made them for me had enjoyed themselves immensely and thought me either an eccentric or a designer trying to revive an out-of-date style. I can't say the clothes were the most comfortable I'd ever worn, but I'd get accustomed to them. Hell! I'd lived in the like at one time, hadn't I?

I checked my face in the mirror for stubble. Or did they call it Five O'Clock Shadow then? I thought I'd better settle down and get used to this, because if what I'd planned worked out this was to be a one-way trip for me. No going back. I wondered if I had any regrets.

No. No regrets so far. I'd thought a long time about this.

The American Restaurant (which naturally was run by a Greek) was small and close and poorly ventilated but clean to a fault. Behind the counter, Nick, like almost everything, was smaller than I recalled, with a short, thick thatch of curly, black hair. For an instant I thought he recognized me, but—of course—that was almost impossible. My slight resemblance to my father wasn't enough to be concerned about. I gave Nick my order and studied the molded tin ceiling. His ceiling fans were working and swung slowly without much effect in the stagnant air.

The food was good enough but the price was astonishing. Eighty-five cents for a complete meal!

Foreign Correspondent was playing at the Regent Theatre across the street. I remembered the grey, gloomy film and the scenes in the dark and creaking wind-mill. Maybe I'd get time to see it. Money, particularly the paper money, had been difficult to come by, but the twenty-cent admission price wouldn't take much of a bite out of it.

I'd need to find a place to trade the gems I'd brought along with me for contemporary cash before long. Not too many people had kept thirty-nine-year-old paper money. Although I had a good supply of money with me that wasn't over forty years pre-dated, what I had wouldn't last forever.

There was a radio in the hotel room. It was not coin operated. I fell into a cushioned wicker chair and listened to a little of *The Jack Kirkwood Show* and became deeply involved in the beautifully done *I Love A Mystery* before climbing into the high, creaky bed. Tomorrow would be Saturday. Suddenly it struck me that I had eaten meat for my Friday dinner. Wouldn't the Monseigneur at St. Raphael's be upset at that?

Over the top of *The Springfield Morning Sun* I watched a line of kids waiting to get into the Majestic Theatre and the Saturday morning showing of cartoons, chapter nine of *The Iron Claw*, and the double feature. I waited until the whole line filed into the theatre. Disappointed, I folded the paper and jammed it into my jacket pocket. If I had been in the line of kids I hadn't seen me.

Silverstein, next to the Fairbanks theatre (God! There were a lot of movie houses for such a small town!) paid well enough for the few gems I sold him. I now had a slightly firmer financial base. The money didn't seem as though it was enough, but then I thought of what it was *worth* and felt better about the transaction.

I had plenty of time (and chuckled at the thought) so I walked the length of the town through the Saturday shoppers and dodged the farmers' jalopies on their weekly trip to the markets. The trolley was gone but the tracks still lay in the streets. A truck with solid rubber tires, chain driven, passed carrying great rolls of paper to the Crowell Collier plant. *Collier's Magazine* was displayed on the newsstands I passed.

The troublesome problem of how to make the initial contact was solved for me after I mounted the few steps onto the wooden porch of the yellow house and pushed the door-bell button. I heard the

bell in the depths of the house (under the kitchen as I recalled), and someone approached the door.

The door opened. She was frighteningly young, terse, and glad to be rid of me. She never cared for strangers at her door, much less in her house. But I got the information that "Jimmie" was out and would not be back until later that afternoon. That was good. It would be easier to talk to him away from the house. I didn't want her to know about this thing I had planned for Jimmie and me. I touched my felt hat and said 'thank you'. I knew where Jimmie was and it was not a long walk.

I think I saw me out in the overgrown lot, but I turned and—trying to look casual—walked away down the narrow, shady streets.

The bar-restaurant was two blocks east of where I had remembered it. I climbed the three steep, concrete steps and went into the beer aroma and cigarette smoke. I ordered a *Wooden Shoe*. An advertisement for *Wooden Shoe* hung behind the bar. I had, until then, quite forgotten the brand. It was a good beer, richer and thicker than the aluminum canned stuff I had but lately left.

The place was a neighborhood hangout, and I was a stranger so I was left to myself by all but the bartender. Jimmie was there. I watched him in the mirror behind the bar. He was as I remembered him, but the angles of his face were softened and the lines erased. No, not erased. They had not been inscribed. I studied the face; and while it stirred memories, at the same time I began to feel remote and an alien and the situation unreal even as I brushed a very real fly from my hand.

I wasn't too sure anymore of how to go about this. Lord knows I'd planned it often enough even to the point of rehearsing my speech. But now the careful planning seemed inappropriate. What was I to do? Walk up to a thirty-two-year-old man named Jimmie and say to him point blank, "Hi! I'm your forty-eight-year-old son"?

The bar was small, cozy, and warm in the June heat. Flies buzzed diffidently in and out of the screenless windows. I ordered another beer and a pot-roast sandwich, and studied the rendering of the wooden shoe on the bottle's label while trying to overhear my father and his friends talking. I noticed he smoked *Lucky Strikes*. In a green package. The green had not yet "gone to war." Nor had any of these young people. I wanted to warn them but dared not. The first problem was how to get to the fellow who was

about my size and bore the long, Irish lip and was drinking his beer slowly and fingering his change on the bar.

That turned out to be fairly simple. All of them were evidently employed by the Crowell Collier plant. They were talking printing.

I finished the thick, chunky sandwich and waited until the mechanical arms of the gaudy, bubbling juke box had returned Bob Eberle to his numbered slot. A lull in the conversation happened just then and I turned to the group at the far end of the bar and asked, "You fellahs in the printing racket?"

With obvious reticence they looked up; and one of them, a big, square-headed, blue-jawed young man said, "Yeh. But if you're looking for work mister, you'd better forget it around here."

It was 1939, and they were just crawling up from the Depression and were protecting their jobs like a mother bear her cubs. "No," I said, "I'm not in printing anymore. But I used to be." I thought of what might get a *Collier's* man talking. "I was with the *Saturday Evening Post*. Curtis. In Philadelphia."

The afternoon went by swiftly, and the good beer lent a glow to my conversational lying. I carried it off with ease. And why not? Everything I knew about printing—and it was a lot—came from the fellow sitting to my right. The one with the short, dry chuckle, who was sixteen years my junior and who was my father.

I suppose I should have gone into the printing business were it not for a succession of those foolish, little things which are always behind big changes in the course of events. An ad in a comic-book displaying a red-cheeked youngster whose entire head was split by a smile at the *Chemcraft* chemistry set. A nun, a Sister of Charity, who unearthed a talent at mathematics. A scholarship for—all things—the sons of printers, which had been established by a gentleman who had done well for himself and remembered the "ink-stained fingers." The sympathetic head of a Massachusetts research laboratory far removed, both in space and time, from the quiet, Ohio town and the little, yellow house. Then my own research grant and laboratory and the damfool chance discovery of the mathematical paradox which, without the knowledge of my financiers, put me in a small bar in the small Ohio town on a warm June day with a scheme to make things up to my father, who I'd always thought had gotten a bad shake.

He was your average man, I suppose. But I remember when he was in his forties and I had just been separated from the service, some fifteen years hence, recognizing in him a quick intelligence

and an inquiring curiosity which had not been apparent to me when I was a child. He worked hard, as did many fathers in the nineteen thirties who were fortunate enough to find work. But there was always something holding him back from the "big break." His wife, the times themselves, his "shanty Irish" background, and his own footloose father, who'd been a vaudeville comic. He just had no base on which to build. It was an all-day struggle to pay the rent on the house in which we lived but could not own. The money for the beer he was slowly nursing came, I knew, from scrimping and maybe cheating a little on the pay-envelope. Not much. Just a little. None of his luck nor any of his efforts allowed him to gather much more than just a little.

The War came, and we were forced to vacate the yellow house and spend the duration in a hideous little apartment in each other's way and at each other's throats. My mother made life hell for him for not having a big house and a big bank account while she drained him of what little he made. He was unable to fight back because he knew of nowhere else to go nor anything else to do. I was there. I watched it. And I hated it.

Now, no longer too late, I was going to do something about it.

The group at the bar broke up, and my father left to go home to one of my mother's burned meals. But before he left we made a date for later that evening. He was to come to my hotel room and discuss a proposition which I told him would be of mutual benefit. We had struck it off rather nicely, and I was pleased. I actually *liked* my old man, though in fact it was I who was the old man. It pleased me that he, unlike the house and the town and Nick the Greek, was not diminished by time and unreliable memory. I hoped I had been sufficiently careful not to romanticize the past for which I had abandoned my time and its future. No web of dreams must distort my vision.

I had the microfilm viewer all set up and some bottles of Old Overholt, which I remembered he liked. He arrived promptly; and together we mixed the drinks, falling easily into friendly conversation. Eventually I had to remind him that there was business to discuss that night.

I began by asking him how old did he think I was. He hit it close, flattering me by two years. Then I asked if he remembered the Reo sedan, the house on Light Street and the other house on Selma and the time Uncle Carl had planted the whistle-bomb in Orville's car and did he recall the player piano in Grandma's house and . . .

Like my childhood hero, Sherlock Holmes, perhaps I had too great a weakness for the melodramatic. But I had him! He was intrigued and perhaps a little worried as to how I, a stranger, could know all these intimate family details. I poured it on even more heavily. I reminded him of the time when I was barely three and he came home under the weather one night to fall asleep fully clothed in the bath tub. *No one* but my mother and I knew that one. I knew it only through a freak childhood memory. He wanted to know how I could know all that.

So I told him.

From beginning to end (well not end, I didn't tell him of his own funeral) and tried to leave nothing out that was pertinent to the plan. I didn't know what else to do. The year 1939 may have been ready for Buck Rogers or Brick Bradford and his Time Top; but was it ready for the hard, cold reality of time travel?

Any fears I may have had proved to be unfounded. I showed him my identification from his future and some coins with the likeness of a president who was still in school. And what to him was the most incredible but convincing thing of all: a copy of *Time Magazine* from the year 1978. No one actually from the year 1939 was capable of inventing such an outlandish future. He was convinced.

We refreshed our drinks and looked at each other for a long, silent time. He smiled, raised his glass to me and I knew that the funeral would not have to take place. Not at the time I remembered nor under the circumstances. I raised my glass back to him.

We got down to business. I showed him the microfilm viewer and the films of each of the local papers for the next five years and a scattered selection from succeeding years. Turning point years, key years. It took little imagination to realize what one could do with tomorrow's newspaper. I suggested we make a few judicious wagers with our pooled money on what legitimate betting places were available. We'd accumulate capital then go into investments and real estate.

He couldn't absorb all of it. Not all at once like that. Nobody could. But I told him of the coming war and how the values of everything were going to turn topsy turvy. We looked through the stock market reports in the papers from the future, and he saw the Collier's printing plant vacant and lifeless. We saw companies rising from nowhere to the very peak and then vanishing as the years swept over them like the wind over sand dunes. Buy this then. Sell that later. He became completely caught in the whirl-

wind of his good fortune and the larger tornado of what—until now—had been an unimaginable future.

He weighed my suggestion of travelling to the legitimate betting arenas and rejected it as being too slow. He was ready to go now, today. First thing tomorrow. But tomorrow was Sunday and the legitimate places were too far away. He knew, however, of some not-so-legitimate places where . . .

I should have known.

That's my Pop!

We made plans into the wee, small hours. Every once in a while he'd glance at me as if to say, "That's my son? The wrinkled guy with glasses and that capacity for rye?" Then the familiar grin would crack his young face and we'd plan some more. We had the world by the tail and a roomful of Old Overholt.

We were both on the point of exhaustion when he left. He invited me to the house for Sunday dinner. I was hesitant about accepting. I was curious about the ten-year-old me, but I remembered how hostile my mother was towards my father's friends, and mostly I remembered what a lousy cook she was. But he was feeling the *big man* perhaps for the first time in his adult life. Not even my mother, his wife, could daunt him. I was coming to dinner and that was that. Reluctantly I agreed. I didn't want to but I could not refuse him. Not while he radiated hope and was puffed with pride. Pride is not a bad thing. They tell you that to have pride is sinful then in the next breath tell you not to lose pride or you'll end up a bum. So I agreed to sup with this proud, good man.

I don't know how he broke the news to my mother that a stranger was coming to dinner, but I can well imagine there was a scene. Something about the scum one picks up in beer parlors and don't tell ME about any big deals. You wouldn't know a big deal if it bit you. Things like that she'd say. I remembered how she used to brow-beat him and the thousand little emasculating tricks a woman like that knows. I remembered she tore him down in countless ways all the years I was with them. I wondered at how he stood as tall as he did. I remembered. I remembered a lot of things and perhaps less than I should have.

I arrived at the appointed time. "Early enough to get to know the family" was the way he put it. I hadn't realized he was so adept at irony.

The day was bright, hot, and dry; and a little breeze raised small puffs of dust from the baked Ohio soil.

He answered the doorbell, it was battery-operated and shrill, but I had to be ushered into the kitchen to be introduced to my mother, who was sulking over a little enameled stove. He told her I was a cousin of the McCarthy's from Shenandoah. She didn't like them either and turned to the stove and rattled a pot lid.

While the meal was being prepared we escaped from the kitchen with a warning not to go far. We took some drinks out the back door, skirting the thick, concrete cistern top and went past the garage into the back yard. And there was the dog. The black Cocker Spaniel that had been mine . . . was still mine at the age of ten. I called him and, irrationally, was disappointed that he didn't know me.

As I stood beside him I heard my father call my name, and I watched me emerge from the jungle of weeds and trash of the back lot. I was dirty, skinny, and had big ears and one sneaker that needed tying. My father was making comparisons and slyly remarked that I'd put on weight.

I was introduced to myself and the little me just stood there as silent and sulky as his/my mother. Shy, withdrawn, and uneasy he/I looked me over and weakly mumbled something before vanishing once again into the weeds.

I was an unpleasant little kid. And I wasn't surprised that I didn't like me much. But I wished me well. The years ahead of me/him were going to be wonderful ones indeed in contrast to the ones behind me, and we'd get rid of that sickly personality and replace it with a by-God world beater. I looked at my father and he shrugged. He called again. We went to dine.

At the table covertly I watched my ten-year-old self trying to hide the burned meat under the mashed potatoes. I should have liked to try that myself but I remembered the futility of this inept maneuver only too well. My mother's idea of cooking was to boil potatoes until they were slush and burn meat to the consistency of shoe soles. My father was able to survive by eating twice a day near the printing plant.

He was bursting to tell her who I was, but I had made it plain that I thought this would be unwise. I wasn't sure how she'd react. And I didn't want her to take the reins from my father. Lord knows, she was capable of it; but that definitely was not in my plans.

Conversation was confined to me and my father. No one else contributed. Little me disappeared almost without my noticing it, probably to go throw rocks at the bats chasing bugs around the

gas street-lights. I knew, with the certainty of history, that he'd never hit one. Dinner drew to a close.

From the radio Ben Bernie said, "Yowzah, yowzah, yowzah. And now here's a pretty little ditty by . . ." I sat with a familiar discomfort in my own home of some forty years ago and listened to my father treating me with the respect due my age, talking low but excitedly about the great plan. The workings of the plan had by now become so engrossing that he ceased to wonder at an older someone claiming to be his son sitting in his living room, drinking his rye and looking out the windows at darkness descending on a day in 1939.

I felt the house was timeless, and I could sit in it and watch that long-gone year go by outside the windows as though I was a passenger on a ship gazing out a porthole. But the illusion didn't deceive me. With terrible certainty I knew that in a few years the War would come and the house would go and the real hell would begin. But not this time around. I determined right then to buy and keep the yellow house no matter what happened. It would be a symbol of the rift in two time streams.

In the kitchen the rattling of dishes in the sink ceased. My mother said a few words as she passed through the living room and went upstairs to a pink chenille room which was exclusively hers.

I watched my father for a while. He was so much younger than I remembered. To me as a child he seemed to loom hugely, but he was only a little less tall than myself. He questioned me about the next few years; and I answered as best I could, which was none too good. Who remembers all the details of his childhood? The exact times, dates, and places? Certainly not I. But we had the microfilms. I carried them with me in a little, metal can all rolled up into a nice tight cylinder. Instant, accurate, canned future. Ready to serve.

We talked long and hard, and suddenly, all in a moment, the excitement and apprehension caught up with me and exhaustion overtook me. I could no longer talk and deal with the huge projects we were tossing back and forth like minor gods outside of time and Earthly concerns. We even planned to avoid the War. It seemed within our scope with our certainty of the future and my technological background. I rose to leave, announcing my intentions and my weariness.

In the mirror on the living room wall I saw myself in a dark suit of the era and with my years showing on my face. I thought

it was no wonder the little me, long since sent to bed, wasn't too eager to talk to this tired and, from his viewpoint, vastly old man. There was something disturbingly familiar about the man in the dark suit in the mirror.

After one for the road and many long goodbyes I stepped from the porch into the shadows of the trees lining the quiet, empty street, seeing the gaslight flicker through the shadows and hearing its hollow hiss.

Something akin to *deja vu* took hold of me but I thought, "Why not? There are going to be whole years of *deja vu*." It was a pleasant night, and I decided to walk back to the hotel. It wasn't that far, and the walk would calm me and make it easier to sleep. "Good evening Mr. and Mrs. America and all the ships at sea!" barked a too-loud radio through an open window down the block.

I walked up Western Avenue, figuring to go left at Main Street towards the hotel. At the intersection I waited for the light to change and crossed when it winked green. And suddenly, unexpectedly, I remembered what was familiar about the man who was me in the dark suit reflected in the living room mirror and stopped in my tracks.

That's when the truck, making the turn onto Route 40, hit me.

I work in a TV repair shop in Circleville, Ohio. I don't know exactly how I got here, but some of my technical background must have clung to me because I'm supposed to be hell-on-wheels when it comes to delicate wiring. I make a good living and I'm called, "Pop" which, while unimaginative, has a certain bite to it.

My memory returned in 1960. They told me they never found my identification. Some out-of-work 1939 citizen probably walked off with my wallet. I had been taken to a large hospital in Columbus specializing in mental problems, which is probably why my father never found me. I'm sure he must have tried.

I'm in my sixties and have been working at my own little business for about twenty years. I had been discharged with a name, skills, and the ability to function in society. I had everything but a history. A handful of diamonds from an inner pocket set me up in business.

I never found the microfilm, but that damned, tricky memory keeps bringing up the image of a ten-year-old boy finding the can of film under the cushion of the chair in which I'd sat and taking it down to the cellar to the old hand-cranked movie projector stored there and seeing it wouldn't fit and saving it until one

day—while bored—touching it with a lit match and watching it curl slowly and deliberately like one of those "snakes" one used to buy around the Fourth of July.

And I remembered when I was about ten years old being visited by an older man, slightly taller than my father, who wore a dark suit and talked with my father long into the night about some big and fantastic things they were going to do together. I remembered the face I saw in the mirror—all too clearly and much too late—as being the man I was introduced to in the back yard.

I did not try to find him or them again. It was too late, I was too old, and I had nothing to offer. The films were gone and by now long out of date. And you'd better thank your lucky stars I was hit by that truck. Because if I hadn't been there would possibly have been no World War Two and just possibly, in the altered course of events, no you either.



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MALICE IN WONDERLAND

by Glen M. Bever

art: Frank Borth



The author of this odd piece was born in Washington DC in 1947, grew up in Washington State, and now teaches physics and space science in the high school in Peru IN. His wife and he have three children, two parakeets, and a 70 pound, black, Standard poodle named The Wookie. John W. Campbell bought his first story—which appeared in 1971—after two years of criticism, encouragement, and on-and-off revision.

It is my sad duty to report that Al Gingerich, after a meteoric rise to the top of his profession, has disappeared. Specializing in science fiction and fantasy film, Al was one of the few agents in the field reading unsolicited manuscripts without recommendation or fee. That policy apparently caused his mind to snap: the following letters were found neatly stacked in the OUT tray of Gingerich's deserted Redondo Beach office.

He will be missed.

Dear Mr. Swanson,

It is always a pleasure to hear from someone else who appreciates both the artistic significance and the box-office potential of a really top-notch monster film. I, too, view the public's demand for ever-increasing realism in such productions as a challenge to be met whatever the cost.

I even agree with you that the genre is in urgent need of new story lines. As I always say, when you've seen one giant amoeba, giant ant, giant cockroach, giant grasshopper, giant tarantula, giant leech, giant squid, or giant gila monster, you've seen them all! However, despite the examples of Jaws and King Kong, I simply do not believe that the movie-going public is ready for your script "Radula, the terrifying tale of a hundred-foot-long snail run amuck in Chicago's Loop".

Even ignoring the unfortunate implications of the square-cube law vis-a-vis your multi-ton mollusk's prospects for respiration and locomotion, a giant snail must be rejected on artistic grounds. The most cursory research reveals that your average snail is:

1) vegetarian -- unsatisfactory for obvious reasons.

2) possessed of blue blood -- who ever heard of cerulean gore?

3) notoriously near-sighted -- the Beast

couldn't see Beauty more than two feet away.

4) SLOW -- two feet might be an insurmountable lead!

and 5) worst of all, a hermaphrodite -- you'll never get the PG rating you're obviously after with a pervert for a star.

For the above reasons, I am regretfully returning your manuscript.

Zoologically yours,

Al Gingerich

P.S. If you re-write this, have the snail follow some other expressway into town; the Dan Ryan won't take it!

Dear Mrs. Ellis,

Thank you very much for the opportunity of reading your screenplay 451,000,000,000°F and Not a Drop to Drink, a most vivid portrait of the horrors of Hell. I particularly liked the scene where the evolutionists were being eaten alive by worms, although the dunking of the Godless, pinko politicians and Supreme Court justices into the lake of fire was a lot of laughs, too. After long and prayerful consideration, however, I am regretfully sending back your ms. As a matter of economic survival, I make it a rule to handle only science fiction and fantasy, rather than theology -- whenever I can tell the difference.

Piously yours,

Al Gingerich

Dear Mr. Hartman,

I agree with you wholeheartedly that the government's domestic spying and rampant Big Brotherism threaten our civil liberties. Even so, I dare not handle your story Get the LED Out, in which micro-

miniaturized CIA men secreted inside pocket calculators keep millions of Americans under surveillance. I'm afraid that my IBM Selectric will turn me in if I blow the whistle.

My apologies,

*1 G*ng*r*ch

Dear Ms. Hunter,

I have some bad news for you in connection with your proposed screenplay Son of Dracula Meets His Mummy. It is not general knowledge, but after the birth of his twelfth daughter last year the Count had a certain piece of minor elective surgery done at a local clinic.

There ain't gonna be any son of Dracula!

Yours for ZPG,

Al Gingerich

Dear Mr. Williams,

Congratulations! After years of just missing the brass ring (notably with Dr. Weirdlove, A Clockwork Grapefruit, and 2002), you have finally beaten Stanley Kubrick to the punch. The modern disaster film has undoubtedly reached its pinnacle in your screenplay Splat!, in which a small Iowa farming community is simultaneously struck by flood, fire, lightning, hail, tornado, earthquake, volcanic eruption, meteorite bombardment, sonic boom, a plague of boils, and a hundred columns of South American fire ants. I cannot but wonder, however, about the plausibility of the avalanche. And about that tidal wave . . .

On second thought, have you ever seen The Exorcist?

Derivatively yours,

Al Gingerich

Dear Miss Lewis,

Your remarkably graphic story The Sirians Are Coming, wherein every woman in Minneapolis with a 40-inch bust is carried off by aliens, is a casting director's dream. (Incidentally, I think that the Polaroid snapshot you enclosed pretty much guarantees you a job as an extra in the film.) But before I open the bidding war, I simply must have the answer to one question: what do your bright green, octopoid BEMs who use mineral oil for blood want with this mammary cornucopia? It could hardly be for a close encounter of the fourth kind (penicillin, anyone?) -- it is, after all, a truism that a warthog is lustworthy only to another warthog.

Please rush your reply in a plain, brown wrapper.

Pantingly yours,

Al Gingerich

Dear Mr. Turner,

For shame: the central thesis of your script The Bloodsuckers is the attack of a horde of mutant mosquitos, each the size of a Boeing 747, from somewhere in darkest Africa. Neglecting the violence this does to the square-cube law (did you ever wonder why elephants don't have legs like hummingbirds?), how do you propose to power these overgrown gnats? I figure it would take 110 octane blood to keep 'em flying, and except for my Uncle Harry the wino . . .

Instead I suggest that you keep the original title and write a documentary about the IRS.

Penuriously yours,

Al Gingerich

Dear Mr. McDonald,

I realize that one should never underestimate the dramatic potential inherent in the man-into-beast

theme. The unsuspecting, stolid peasant turned into a werewolf by the light of the full moon strikes a responsive chord in most of us. And I really am aware that other cultures have their own legends, such as India's weretigers.

An informal survey conducted at Peabody's Bar reveals, however, that of twenty-six people questioned, not one would be the least bit terrified by a werechicken. I'm afraid that your script Fowl Fiend has laid an egg.

Regards to the barnyard,
Al Gingerich

Dear Mr. Cole,

Actually, your idea of a motile, intelligent plant is not totally original: the alien in the movie version of John W. Campbell's "Who Goes There?" has been scaring the bejeezus out of people for years. Nonetheless I must admit that your screenplay Mutant Vegetable Vengeance, in which a truckload of fresh produce is accidentally irradiated by an exploding uranium fission power plant, embodies some unique concepts.

I think my favorite scene is when the thousand-ton rutabaga tramples the monorail terminal underfoot (?) while the giant carrot snuggles up to the Space Needle with cross-pollination on its mind. But before the special effects boys get to work staging the total destruction of Bremerton, Snohomish, and Puyallup by a phalanx of laser-wielding giant eggplants, I think you need to dispose of a couple of minor technical questions that some carping nit-picker is bound to ask:

1) How can a reactor operating on 2-3% enriched fuel go critical?

2) When did all those rampaging rutabagas and amuck avacadoes find time to reproduce? I mean,

everybody knows that mutations can't appear until the offspring turnup. (Sorry!)

I am looking forward to your explanation.

Botanically yours,

Al Gingerich

Dear Mr. Carter,

Let's face it, fellas, you blew it. On page 2 of Attack from Alpha Centaurus [sic], we learn that the only thing that can save mankind from the lobster-like invading aliens is the "multiphasic sinusoidal newtrino [sic] beam projector" invented by "Earth's #1 scientist, three-time winner of the Noble [sic] Prize in physics, Dr. Albert Isaac Hoyle." So you can imagine my dismay when, on page 33, the good doctor attributes a trial-run fizzle to "some fool lab assistant having pulled the plug, so that all the electricity leaked out of the socket."

Frankly, I think the Earth is a goner,

Sadly,

Al Gingerich

P.S. Along with your ms., I am sending you the business card of the fumble-fingered dolt who fixed [sic] my color TV set last month. Perhaps he can give you a technical refresher course!

A G



OUT OF QUARANTINE

by Bill Pronzini

and Barry N. Malzberg

art: Alex Schomburg



The authors have collaborated on three suspense novels: Running of Beasts, Putnam's, 1976; Acts of Mercy, Putnam's, 1977; and Screams, Playboy Press, forthcoming. Their collaborative anthology, Dark Sins, Dark Dreams: Crime in Science Fiction was published by Doubleday in 1978. They have recently given up bourbon for vodka, but neglected to let us know why.

The first thing I did when I came out was to go into the Freight-er's Bar, of course. They told me that was where the people were. Clearance was a very controlled process of machinery and robots; they had their reasons, the robot administrator said, for holding back human contact until clearance. Too much emotion and so forth.

I could understand this.

Six years.

In six years nothing changes or then again everything. The bar looked the same as it had the last time except that now they had a robotender and the place was deserted except for one man in shadows at the far end.

When I stepped to the bar the robotender wheeled up to me. "Yes, sir," it said.

"A Skirbin," I said. "This is the first drink I've had in six years. I've been mining alone in the Belt."

"Straight up or cubed sir?"

"Cubed. Do you know what it's like not to have seen or talked to a person for six years? No," I said. "I guess you don't. You're a machine. You simply don't need human contact."

The bartender filled a glass and paused. "Twist of citron, sir?"

"In a Skirbin? Hell, no. Nothing."

"Yes sir."

"The Belt," I said. "It's cold there. And dark. No vegetation. No terrain. Loneliness. It's enough to drive a man insane but I managed to make it all the way back here in one piece."

"Thank you sir. Your drink is entered on the registry. Please press the button if you wish another."

The robotender wheeled away. At the other end of the bar it dimmed all of its lights. I picked up the drink and took a swallow of the pale yellow liquid. Six years, I thought. God!

I looked at the man on the far end and on impulse walked—not wheeled, *walked*, damn it—toward him, holding the drink in my hand.

"I've been Out six years," I said, pointing through the bar's plastoid ceiling. "I guess you overheard that."

The man said nothing. Seen close he was expressionless, perhaps my age but with a curious emptiness in his eyes.

But he was the first human being I had seen in six years. "You do understand me, don't you?" I said, "or do you speak another language? Why won't you say something?"

Silence.

"Look," I said, "do you know what it's like not to have any human contact all these years? All I want from you now is some indication that I'm alive. That I exist!"

This time I thought the man was going to say something. His expression kindled to alertness and he leaned forward, but then just as he seemed about to speak he fell back into the seat and the expression dulled. *You're playing with me*. I thought. *Why?*

"Why?" I said. "Why won't you talk to me?"

His eyes would not acknowledge me.

My mood began to shift into something murderous. You learn a good deal of patience in the Belt, but this was not the Belt at all. I was home again, if home meant anything; and if I had managed for six years to exist by not feeling anything at all, then I was entitled now to exactly the opposite. There was no other reason to have fought off the madness so that one day, this day, I could come home. If I could not feel, then I might as well be a machine.

"Speak to me," I said.

The man said nothing.

"Speak to me," I pleaded. "Show some pity."

Nothing.

I hit him then.

Emotion overtook me and I hit him across the left cheekbone and knocked him to the floor. I had lost control and I wanted to hurt him as he had hurt me by his silence. I threw myself upon the figure, flailing with my fists, not caring that behind me were the sounds of metal moving along the bar.

But his eyes still would not acknowledge.

So I hit him again in the cheekbone, and there was a grinding and I felt a contact that was metallic.

Metallic.

He broke open then. Within the cheekbone I saw not blood, not the intimation of bone but wiring, strands and loops of machinery; I heard the implicative whirr of engines. Lights flickered within the spaces of the thing on the floor beneath me, and then it was silent.

"Why?" I said. "Why?"

Behind me a voice said, "We'll tell you why."

I found myself moving upward and turned in that clasp, expecting the grip of the robotender or the claws of the Quarantine Police. But it was neither. These were faces I saw.

Human faces. *Real* human faces?

"You passed Final Quarantine," the voice said. It was a woman.

"Final Quarantine?" I said numbly.

"The last step. You went all the way through," she said. The others nodded. "After years of isolation in space some cannot come back immediately. We must find out whether they will have to be reintegrated or whether they are ready from the beginning to receive human contact."

"But I attacked him," I said. "That was—"

"Insane?" she said. "No." She paused. "Not for you. Not for a man. Machines are unemotional, you see, but human beings aren't."

"Not—"

"Not if they survive the Belt and remain human," she said quietly. "Not if they're still sane enough to need human contact."

She touched me tightly then. The others moved in closer. It felt all right. It had been a long time.

The robotender, ever helpful, said, "New drink sir?"

I took the glass from its burnished hand, thinking of this but then again thinking of that, and I joined the company of the world.



BY THE HOURS IN A DAY

by Kerstin Lange

The N3F—the National Federation of Fantasy Fans—has a writing contest each year. A while back, your editor was asked to judge one such; Miss Lange's story was the winner, and we then bought it. The author is in her 30s and lives in Southern California. This is her first sale.

She decided to have a good lunch before keeping her appointment. There were several fast-food places around and also a few so-so restaurants, but she wanted to be comfortable, relaxed; to listen to soft music and enjoy good food.

She ate from china and crystal, seated by a leaded-glass portrait window of St. Joan in armor. The waiter brought vinegar and olive oil for her salad without being asked. He served her *crêpes aux poulet et champignons*, delicate and complexly flavored. She wondered, with a mouthful of crêpe and Rheinkästler, what he would have called the dish; nothing French, certainly. *Chicken pancakes with mushroom gravy*, that was his style. She would have to remember that, this afternoon. The coffee was good—Colombian, no doubt—rich and velvet smooth, with just a little sugar and lots of fresh cream. She did not hurry. It was not that kind of a day.

When she finally sat at the desk facing the man behind it, she didn't quite know what to say. He had asked her what he—they—could do for her.

"I want . . . well, I was wondering . . ." She hesitated.

"You wish to purchase one of our people?"

"Yes. That is, not exactly. I mean, I want a certain one. . . ."

"But of course. We have all kinds. You are aware that we are number one in our business, that we have the best, the latest, the most sophisticated in the way of . . ."

"That's why I came to you," she interrupted.

"Of course. Here, look at our catalogue. Guards, trained to protect you and your loved ones; teachers—equipped with almost total knowledge of any given subject—with interchangeable tapes, of course. Babysitters, programmed to give loving care to an individual child or children. Accountants who always balance the

books and never skip to Argentina with the company funds, ha ha . . . but that's not what you want," he said, flipping pages. "What you want is . . . ah yes, here we are. A chauffeur, a maid?"

"No. I do not want anyone from the catalogue. I want one specially made. You do that, don't you?"

"Yes, of course. We do take special orders." He looked at her appraisingly. "Very expensive, of course. Obviously, to build a mechanical person to your specifications—just one—would be a great deal more costly than one of our regular line."

"I have money." Though he must know. Credit checks were invisible but thorough.

"Surely, surely." He placed his hands together. "Then let us begin. First of all, do you wish a male or female?"

"Male."

He produced a gold pen and made a mark on a concealed paper. "And his function?"

"I beg your pardon?"

"What will the—person's—function be? For what do you want him?"

"I want him as a companion."

"I see." He made another mark, hidden, but his look betrayed him. He thought he knew. She knew that he did not.

"Now if you will detail the following: hair and eye color, height, weight, complexion, facial features—"

"Just a minute." She dipped into her purse, handed him a picture. Her fingers nervously tapped her purse. "Well, can you make him like that? Exactly like that?"

"Ah, that is different. Yes, we can re-create; a specialty. Your person will be this man's twin in every way. A mother, even a wife, couldn't tell them apart. Our people are guaranteed.

"Let us proceed differently, then. We have the picture to go on as far as looks are concerned. But personality, feelings, habits, memories, special interests, certain talents, intelligence level, sound of voice—in short, all the things that make up an individual human being—that you have to help us with. You have to help us re-create this man's personality. Describe him down to the slightest detail."

"I don't know—he could be very secretive. He never told me what his doctor said, that kind of thing."

"No worry. We can get that data, with your permission. Give us what only you can. Take some time; record it on cassettes, if that's easier."

"What should I say?"

"What you remember. Where did he hang his hat? Did he wear shoes in the house? Hat size and shoe style will take care of themselves."

With an armload of tapes and notebooks, she went home and set herself in a quiet corner, the better to travel through time.

She scooped up memories, poured them out: walking on the beach, both of them, pulling their sweaters around them, shivering in the cold air but laughing with the wind and the seagulls.

Strolling to a big swapmeet, picking up this and that; coming home with back issues of long-looked-for magazines, Mexican cooking pots in which she would plant flowers, half empty, slightly antique bottles of Avon perfume, which she would occasionally open and sniff, but never actually use.

He—ever the practical one—would carry home various tools obtained at a bargain price.

Sunday morning breakfast at McDonald's sitting in his old station wagon with the missing back window. Would her dog want a hamburger, too? The dog in the back seat indicated yes, but she had said no, thank you, knowing he had only a part-time job. They both left a bite from their burgers for the dog, and also some french fries. Years later, when he had gone and the dog was still there, she would remember this almost more than anything else. It had been so unlike him, so non-practical, so non-thrifty, so non-sensible, considering how it had been he who always chided her for treating the animal like a person.

There were memories of driving along the California highways, looking for a beach to have a picnic, but getting lost somehow and never finding it. Parking the van in a quiet, shady spot and having the picnic there in the van. (Cold chicken, van-temperature rosé wine.)

Memories of hot spiced wine on cold evenings, of afternoons full of laughter, hot dogs and Cokes at the amusement park. And more, and more, and more.

The mechanical person was delivered and he was as she had described him.

She bought a small house, near the country, and they lived there, both content. They made a few good friends, had barbecues in the backyard, went camping, fishing, hiking. There was a vegetable garden because she had a green thumb, but it was he who dug up the earth, loosened it, weeded and watered it regularly.

They traveled. They ran along the shores of several oceans, coming home with bags full of seashells, dead dried starfish, dried seaweed, oddly shaped pieces of wood, and other odds and ends which soon began to smell up the house.

Occasionally they spent a weekend in Las Vegas—she liked it there, he didn't—and now and then an afternoon at the races.

The years passed. Her hair turned gray. So did his (with some help).

The inevitable, of course, happened.

It happened on an ordinary day—a bit cloudy, though—at a gas station somewhere. They drove in and stopped near a man who stood next to his car, poking in the engine.

It was him, an older, grayer him. He turned around and looked at her. And at the seat next to her (expecting, perhaps, to see a big gray dog).

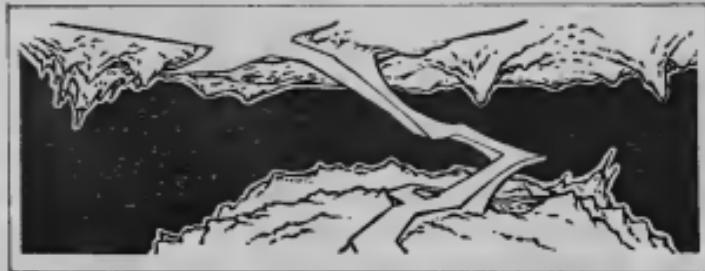
Looking into his eyes, she saw a pain there, a searing pain that reached across to her. He did not smile (but, then, he seldom did).

She looked fully at that man, then, and they asked of each other, wordlessly, those questions that would never be answered. Why? What happened? What went wrong? Where did we fail, how could this have happened to us?

The tank was full. Her companion turned the key and began to drive them away from the station. He seemed to have seen nothing, no one.

She turned for one more, last look at the man who stood by his car at the pumps. A woman stood next to him now, facing away from the departing car, not staring after it as he did.

She caught only a glimpse of the woman's face before they were lost to view; but it was enough, since of course the face was her own.



A GROWING CONCERN

by Arnie Bateman

art: Phil Foglio



Mr. Bateman is 38, single, and currently works for the Texas Employment Commission. Hobbies include photography, oil painting, astronomy (in the "any day now I'm going to get that mirror re-done and build a 'scope" stage), and bowled a 213 game the night our letter arrived, telling him he'd made this, his first sale.

Snarling, Bagarf slowly pulled a four-meter length of creeper from the auxiliary astrogation console and threw it on the pile of vegetation covering the control room deck.

His three-fingered fist punched the intercom. "Hydroponics!"

"Hydroponics. Nefark here."

"Bagarf. Status report."

"Oh, Captain. How are you?"

"I've got creepers in astrogation. Report!"

"I've mixed up some stuff that retards it a bit but still have no idea what's causing the accelerated growth."

"Not good enough. Staff meeting in four Units. You best have something or I'll throw you in those hyperthyroid vats. Out."

Bagarf stood seething for a moment then resignedly began picking grass blades from the command chair.

Bagarf, Nefark, and Mucowk, the engineer, sat around the moderately clear table in the galley sipping mugs of brew. As in the rest of the ship, grass, vines, and assorted greenery sprouted from the ceiling, walls, and floor.

The captain turned to Nefark, who was absently scraping at a large mass of mold with a stirring implement. "Report."

Reluctantly, Nefark looked up. "We may be able to slow—possibly halt—subsequent growth, but I doubt if we can kill off what we already have. In time, that is."

Bararf nodded. "Mucowk? Anything?"

The engineer's breast cartilage rippled. "Plenty; but, unfortunately, nothing that won't get us too."

"Well, with seventy percent of our systems already on backup,

we can't last much longer." Bagarf gulped his brew. "Fortunately, there's a system just under 200 Units away. We'll have to land and try to kick this thing."

A polar orbit was established around the third planet. Anxiously, the aliens watched the main scanner as the green planet passed below.

"There!" Nefark pointed.

Bagarf nodded and began their descent. A large estate grew on the screen: a mansion amid acres of immaculately trimmed lawns and flower beds.

The spacecraft settled softly on the lawn. Bagarf, wearing a light pressure suit and breathing mask, stepped onto the clipped grass.

A dozen or so bipeds were warily approaching him. All wore clothing with green and brown stains, especially at the knees; they clutched a variety of hand tools.

Bagarf stopped. He glanced at the perfect flower beds, then held out his arms to the bipeds and said, "Take me to your weeder!"

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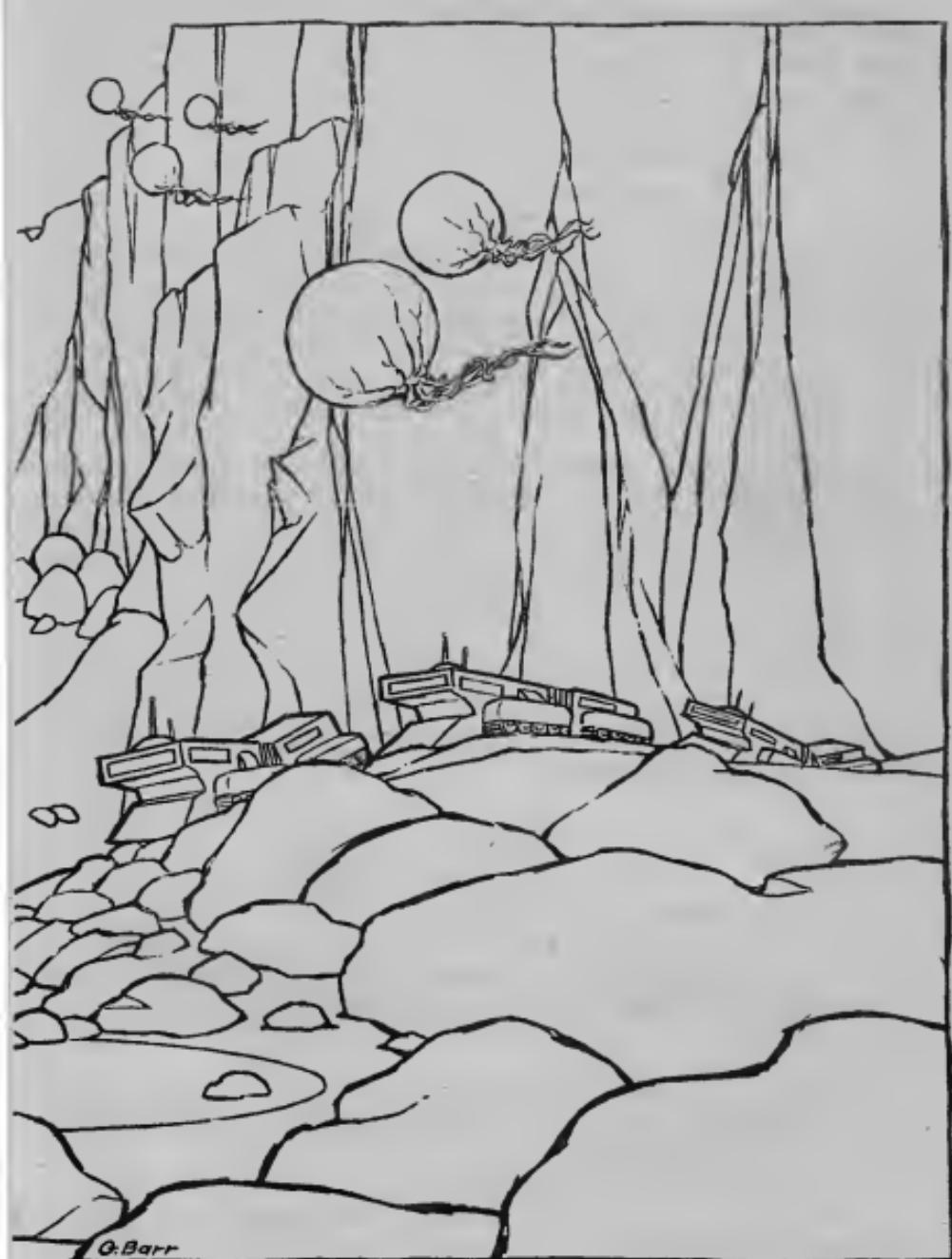
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FARSIDE STATION

by Jack Williamson
art: George Barr





The uncommon planet Medea belongs to the complex system of the star we call Castor, in the constellation Gemini, 50 light-years from Earth. Seen in the telescope, Castor is a remarkable triple double. The main components, Castor A and Castor B, are a pair of splendid blue-white doubles of spectral class A, revolving around their center of gravity with a period of about four centuries. Castor C is a pair of orange-red dwarfs, spectral class M10, in orbit around the brighter stars with a period estimated at 100 centuries.

Not yet visible in our telescopes, Medea itself was invented and designed by a panel of experts for a project sponsored by Harlan Ellison, Medea: Harlan's World. The experts are Hal Clement, Poul Anderson, Larry Niven, and Frederik Pohl. They and half a dozen others have written stories for the book, edited by Ellison, to be published in 1979 by Bantam. "Farside Station" is one of these stories.

Medea is actually a moon, locked in an orbit that keeps the same face of it toward the huge, red-hot gas planet Argo, which in turn orbits Castor C. Deformed by Argo's massive gravity, it is a little egg-shaped, with the Ring Sea between the hot end and the cold end. Most of its heat comes from Argo, though the twin dwarf suns give most of its light. The first human settlements were on the tropic coasts of the Ring Sea, safely between the Hotside, where temperatures reach 80°C, and the Farside, where the maximum is -110°C and carbon dioxide freezes out of the air. The Medean day is about 76 hours, which the colonists have divided into their own more convenient three-day week.

I.

The office intercom grunted.

"Olaf?" It was Sakuma, head of Northcape Engineers. "Clients for you. A couple of motherworlders, pretty fresh to Medea. Want a research station built. I told 'em you could do it."

"Where?"

A silent second.

"Listen to 'em, anyhow," Sakuma said. "They're serious. Well funded. We've talked about the risks, and they're still determined. They want to see Farside—"

"I've seen Farside. Too much of it."

"Not the part they want to explore. The Banda Basin. Where the firebags go to die."

"No!" He shook his head at the intercom. "Send 'em anywhere else."

"Tried to. Tried to tell 'em why it's crazy. But I can't put 'em off. They understand the odds and they want an engineer."

"Give 'em McBent."

"Won't leave his wife. Says this thing could take a year."

"Tell 'em—"

"I've told 'em. They're coming up to see you now."

His office was high in the mirrored tower that the Northcape Engineers had put up to overlook the streets they had paved, the mills and smelters and hydroponic circles they had designed, the great tidal turbine complex where they had been the prime contractors.

A bare little cell, because he was a very minor member of the firm, who chose to work in the open. But he loved the view: the thermal roofs of Chong, a forest of silver cones; the landing strips and piers around the river bend; best of all, the High Cascades.

Though they were twenty kilometers away, he often imagined, at times when the city was quiet, that he could feel the vibration and hear the ceaseless roaring of all those cubic kilometers of tidal water pouring down the black cliffs that marched half around the horizon, exploding plumes and foaming raceways and tall walls of falling water, tawny when the twin suns shone, plunging down into boiling golden clouds.

It was Darkday now, the double sun behind the planet. Low in the south, Argo burned red on the mirror roofs and turned the falls into a deluge of blood. Brighter than Argo, dull red and pale green, the aurora rippled across the moonless sky. Pulling himself away from that familiar splendor, he turned to wait at the door.

Nearing forty, he was thick-set and muscular, with close-cropped sandy hair and weathered, flare-tanned skin. His pale blue eyes had a wary squint, alert for the unexpected. Dressed for Darkday, he wore his field outfit: high thermal boots and hooded thermal coveralls, flaremask pushed back on his head. The bulging ruby goggles made him look a little sinister, like some big-eyed hotlands monster.

The clients were coming off the elevator, escorted by Sakuma's office abo, a tail-clipped, rank-smelling, post-sexual male with an unpronounceable name, who let people call it Charlie. Norlund resented the abos in Northcape. Stinking six-legged vixen that came apart like ugly insects, dropping off two-legged wombs until the final section became a sex-crazed male. They weren't native to

this polar coast, but now there was no keeping them out. They learned too fast and worked too cheap. Charlie was actually reading for its own degree in engineering.

Norlund shrugged, resolving not to be bothered. Sensitive even to the Northcape climate, the fuxes had to keep indoors. Certainly, Charlie wouldn't be joining any Farside expedition.

"Engineer Olaf Norlund." Charlie's voice was a sweetly accurate imitation of the girl who had made its learning cassette. "Bring honored clients of Northcape Engineers. Dr. Aum Padhai, Ph.D. Dr. Leda Lovato, Ph.D. Doctors arrive from Earth five years now, seeking construction of Farside station."

He shook hands with them while it leaned back on its surgically shortened tail, red tongue lolling, grinning at him. The long bright eyes had a malicious glint. Amusement, perhaps, at his predicament. He would never guess what the fux was thinking, but he suspected that it understood too much.

"Thank you, Charlie. Mr. Sakuma wants you back right now."

He ushered the visitors into the room, trying to seem more courteous than he felt, and shut the door on the abo. They went to the window before they came back to the chairs at his desk, the girl exclaiming in her wonder at the falls. He liked her voice.

Dr. Padhai was tall and gaunt. Handsome, perhaps, in a haggard, restless way, but also disturbing. The livid scar of some old wound slashed across his dark cheek and forehead, letting his right eyelid droop, making his intense black stare strangely disconcerting. He had a penetrating scent of something like camphor.

The girl held Norlund longer. She was slim enough, but ripely inviting, her olive skin aglow from the Northcape chill, her hair long and sleek and dark. In this light her eyes looked violet, warm and trustful. She wore a bright platinum bead nestled against the wing of her left nostril. Younger and lovelier than any Ph.D. he had known in his few semesters at Medeana University, down in the hotlands, she was far too fresh and tender for the Banda Basin.

"Mr. Sakuma tells me you're trying to organize a Farside trip." Sitting back at the desk, he tried to be diplomatic. "Technically, of course, Northcape itself is a projection from the Farside continent, but we're protected here by the coast range and the Mushanga Sea, and we do get heat from Argo. Even here, the cold can be severe enough, but it gives you no idea of the climate beyond the glaciers—"



"The difficulties have been explained to us." Padhai's voice was harsh and hoarse, as if from too much shouting, his accent a little hard to understand. "We accept whatever risks there are."

He turned to the girl for confirmation.

"We do, Mr. Norlund." Her own soft Earth accent was more alluring, her tones firm and pure, so warmly melodious that he thought the fux should have had her for a model. "Please don't try to delay us. Just remember what we've given up for this—our world and our time. Sixty Terran years to get here. Sixty more to go back, if we ever do, to a world we wouldn't know. But we do know what we want."

She touched the platinum sphere against her nostril.

"You must understand that we are Seekers."

He nodded, not trying to understand. His people had been gone from Earth for six generations, and he disliked even the Medean hotlands, with their swarming races of fuxes and gasbags, their teeming predators, their human colonists nearly as strange. Northcape was his home, Earth too far away to matter. At the university, he had dropped the dull course in Terran history after the first idiotic test.

"Seekers of truth." Padhai's hollow voice was loud and impersonal, as if from too much preaching to unbelieving multitudes. "Seekers of life. Seekers of God." He lifted his lean left hand to show a symbolic ring, a bright metal globe mounted on a black oval ground. "I suppose you would call us mystics."

Norlund nodded again. The hotland campus had been a baffling buzz of queer phrases and queerer ideas which he had commonly ignored—though there had been one hot-blooded redhead, nearly as alluring as Leda Lovato, who had led him to the brink of baptism in the scummy Ring Sea.

"Try to understand." It was less request than command. "My earlier ancestors had been seekers of oneness with the whole universe for many generations. I cannot say that they were wrong, but the goals of later searchers changed when the great radio telescopes began picking up evidences of other minds in our galaxy."

Carefully, Norlund controlled his skepticism.

"I've read that much history," he agreed. "The mother-worlders detected radio waves they thought were signals. They began sending ships to meet the senders. That's how we humans got to Medea."

"A turning point in the evolution of the human spirit." Padhai's

dark eyes gleamed, and his hollow voice had the ring of worship. "The old quest for nirvana had been a difficult abstraction. For many, far too difficult. Suddenly, when those signals were received, we could begin to look for cosmic truth, for communion with a universal intelligence on this side of death."

"You didn't find it on Medea."

"Perhaps not. Perhaps because we forgot to look."

"Is that why—" He turned to the silent girl. "Have you come to hunt for cosmic truth in the Banda Basin?"

"We have." Her limpid eyes made a mute appeal. "Don't laugh."

"We're Seekers, remember," the dark man said. "The reach from Earth into space is the noblest thing our race has done—at least as it began. Later, tragically, that supreme first goal was almost forgotten. Our destined universal union has yet to be achieved, but it must be."

"If those old space pioneers came looking for universal harmony . . ." Norlund paused to soften his sardonic tone. "The supposed signal turned out to be natural radio emissions from the hydrogen envelope of Argo, modulated in odd ways by the magnetic fields of the flaring suns and by Medea and Argo's other moving moons. The fuxes and cosmic truth!" He laughed. "As for communion with the firebags—"

The girl's hurt face stopped him.

"You must understand our disappointment." Padhai's voice was still commanding. "Recall the transit time to Earth. A laser beam takes fifty years to carry news there. The ship took sixty to get us here. We set out on reports now a century old. We arrived expecting to build upon a hundred years of progress—"

"And you found the hotlands!" Norlund grinned at the contrast. "The abo cultures wrecked by contact with the human—if the abos ever actually had any culture. The humans scrabbling to survive in a world they weren't made for, most of their own culture lost, trying to live on the natives, getting their highs however they can, waiting for the next ship from Earth." He made a face. "I've lived down there and I don't like it."

"We had hoped for more." Padhai nodded solemnly. "Though the first explorers found no high technologies, some of them did report evidence of advanced achievement among the balloons. Linguistic, aesthetic, intellectual—"

"Gasbags!" The girl had flinched, but Norlund let his scornful voice run on. "Down at the university, I took a course in Medean biology. We spent a week on a lab ship to study the balloons.

Half-plants. They hatch out of floating weed in the tropical ocean. Inflate themselves with hydrogen when they mature. Drift on the wind or pump themselves along with their siphons. Living on insects or swamp-vermin or anchored by their drag-ropes over any sort of garbage. About as brainy as plastic market-bags!"

"Some, perhaps." The girl showed no resentment, but her warm fervor surprised him. "Not all. We've been here five years now, looking for brainy balloons, if you want to call them that, digging through official records, touring the tropics, searching the tapes in the university archives, turning up clues wherever we could. We believe they do exist."

The color of emotion became her as she continued. "There were—are—hundreds of different species of the balloons and the things they call fuxes. Evolved to fit the enormous range of habitats between the hot pole and the cold pole. Most pretty primitive. Many, as you say, degenerate now. Some already extinct. But at least a few were highly advanced, even with little or no material technology."

She gestured toward the power stations under the falls and the blue-glowing hydroponic circles and the red-lit thermal roofs of Chong as if her aloof disdain could sweep them all away. "We're looking for contact with a species never well-known: the Ahya—the kind you call fire balloons. A great part of their cycle of life is what you have just outlined; individuals bud from a plant-like matrix floating in the tropic seas. They inflate, fly, feed and grow, breed, shower milt back into the sea. The difference we know is their way of death."

"On Farside?" The words reflected more mockery than he had meant to show, and he saw her flush of resentment.

"Individuals past the sexual phase leave their swarms." Her voice became coolly impersonal, her emotion well controlled. "They work their way to upper latitudes and catch a jet stream that carries them across the Ring Ocean and on over Farside."

"To the famous Banda Basin?"

"We hope to follow them there."

"A hazardous hope." More careful now, he tried not to smile at her innocent intensity. "The basin's a fine place, I guess, for old firebags to die. But not much good for anything else. Certainly not for people. The carbon dioxide doesn't actually freeze out of the air till you reach the great ranges beyond it, close to the cold pole, but the basin's cold enough."

"We know the difficulties." She nodded serenely. "Grateful for

them, in fact. They're why the sacred places have never been disturbed. Your scoffing doesn't surprise us, because the Ahya have learned to stay out of the way; but we've uncovered evidence to show that they had a high culture once. We hope to find it still surviving there in the basin. This is our last chance for a real contact before it is destroyed."

Leaning toward him, wide-eyed and breathless, full lips quivering with feeling, she triggered a painful pang of desire. Three women had left him: the passionate redhead who tried to baptize him, the witty little artist from the hotlands who found she couldn't stand the Northcape cold, the lithe-limbed dancer who loved it so much she gave him up for a ski instructor.

Leda Lovato's urgent nearness chilled him now with a sudden bitter loneliness. He wished for a moment that he could somehow pick her up, but he had resolved not to let himself be hurt again. The High Cascades and the Farside fringes had always offered him deeper mysteries and more enduring beauties than any woman owned, and they had never betrayed him. Quickly, almost guiltily, he looked away from Leda to Padhai's red-scarred austerity. No doubt she belonged to him.

"The Ahya did try to welcome the first explorers," her quick voice ran on. "The incident is mentioned in the first reports that got back to Earth, a hundred years before we left. They approached several landing parties, trying to communicate through varied channels. Modulated sound, from their siphons. Modulated light—their species is luminous, remember. Even modulated radio frequencies.

"But they showed no material technology, no visible weapons or tools, nothing to interest those machine-minded Earthmen—except, of course, their radio signals. A few of them were killed and dissected in unsuccessful efforts to find out how those were generated—one tape in the archives compares the creatures to Terran electric eels.

"They soon got enough. They've avoided us since then, and we've almost forgotten them. We just weren't concerned about the possibilities of the non-material. We were looking for the sort of thing you have here." She waved at the window as if to obliterate the silver cones of Chong and the mirror-domed turbines beneath the red-lit wonder of the falls. "Tools to conquer nature, not the wisdom to merge into it."

"Listen!" Norlund was on his feet, stung by her scorn. "Let me tell you what we have."

Almost mockingly, she shrugged.

"First, you must understand the tides." He slowed himself carefully, trying to reach her with reason. "Though Medea keeps Hot-side always toward Argo, its axis is a little tipped, so that Argo oscillates north and south in the sky. Only six degrees, but it's a massive object. The tidal forces are enormous."

"So?" Padhai frowned. "I hadn't noticed."

"In the tropics, you wouldn't. It's the polar coasts that feel the heavy tides. A lot depends on the shape of the land. In the funnel-shaped Zaret inlet east of Northcape, there's a tidal bore that rises five kilometers every Medean day. It pumps over into the Mushanga Sea—which is actually a great tidal lake."

"Interesting." Without interest, Padhai flung out his dark-robed arm in an impatient gesture that sent a wave of his puzzling camphor scent across the desk. "But what have Medean tides to do with us?"

"Plenty." Norlund grinned. "Without them, you wouldn't be here now. Certainly you couldn't hope to reach the Banda Basin. We've drilled tunnels under the falls to tap the Mushanga Sea for hydroelectric power—the life of Northcape. It heats this room. It drives our industries. It grows our hydroponic food."

He turned back to the girl, more hopeful that she would understand.

"Before we came, there was only patchy tundra here. The cape was too cold for the fuxes or the balloons or the early colonists. With tidal power, we've made an ecological niche for humanity on Medea. A clean new place, all our own—at least until a few smart fuxes began sneaking in."

"Thank you, Mr. Norlund." Her tone was only slightly warmer. "You help me see why the early colonists were so quick to forget their great original mission. Fighting for sheer physical survival, I suppose they had no energy left for anything else."

"I'm no mystic." He tried again to explain himself, to earn her sympathy. "I do understand physical energy—the power of these tides, of Argo's heat, of the solar flares. I can see life as a manifestation of energy flow. I have a feeling for the High Cascades." He waved at their red splendor, beyond the window. "The same sort of feeling, I would guess, that you must have for God. The turbine complex under the falls is almost a temple for me, a place of great and beautiful machines that obey known laws and run for human good." He grinned at her mute protest. "What I don't understand is the universal truth you say you hope to discover by

watching a few dying firebags fall out of the sky."

"Perhaps you'll learn," she said, "when we come to the Banda Basin."

"I haven't agreed to go."

"Mr. Sakuma said you might be difficult." She smiled serenely.
"I told him we have a way to persuade you."

II.

They left the docks of the city of Chong on a bright spring Sunday to ride the ebbing tide down Black Canyon to the sea. With the double sun just clearing the looming eastern cliffs the High Cascades had been carving through geologic ages, the wind was brisk and raw.

Norlund stood among his five companions beside the three antiquated ice-crawlers chained and chocked to the deck of the small coast survey ship: Padhai and Leda Lovato, still awkward and uneasy in their stiff new thermal gear, and the three hard men he had found at last to join them, tough veterans of the Northcape frontiers with skill and nerve enough to risk the Farside trip.

Nannuk, the moon-faced nuke engineer, who kept insisting cheerily that the Banda Basin could be no worse than the tundras and the polar seas his Inupik forefathers had known back on the motherworld. Floreal, the wiry glacier guide who loved the ice and claimed to hate it, always saving his pay to buy a safe little Northcape bar but always squandering or giving his savings away and signing on for one more final trip. Dork, the lean, black-bearded geologist, a silent but explosive man, driven by unresting inner urges that made him question everything, kept him tossing pebbles at the sky for target practice or trying to beat the master chess program in his pocket computer.

Norlund felt lifted by a brief elation. After months of effort and tension, they were really on the way. Though the tensions waiting ahead would surely be more severe and the efforts far more desperate, they would be going where men had never been. He didn't expect the dying firebags to unit them with any mystic galactic supermind; but he was suddenly looking forward, with an eagerness that surprised him, to all the challenges of reaching the Banda Basin and surviving there.

Chong was built on a river bend, safely above the highest tides. The water along the docks was shallow and slack, but soon they

were on the deep current that rushed down from the falls. The silver roofs whirled away. Looking beyond them at the endless walls of tidal water thundering down into yellow mist, he wondered a little wistfully if he would ever see Northcape again.

"Magnificent!" Leda stood close beside him, warmly friendly since things were going her way. "Nothing back on Earth is half so wonderful. I see why you love it."

In the early skirmishes with her and Padhai, he had suffered several stinging defeats and earned a single little victory. The first surrender had been his agreement to go, his hard resolution crumpling before her shrewd appeal. In the Medeana archives, she had found an early orbital survey that reported indications of radioactive deposits on the high plateau that sloped up beyond the glaciers to the worn mountain ridge that rimmed the basin. When he refused to be impressed, she went back to Sakuma.

"Our tidal power is plentiful but stationary," Sakuma reminded him. "We still depend on nukes for ships and aircraft. If there really is uranium or thorium on that plateau, we need it. I know the climate up there is pretty grim, but men like you can find ways to get it out."

"I don't like bringing your machine technology any closer to the Ahya," Leda admitted when at last he gave up. "But if the ore is really there, you'd find it in spite of us. When we reach the Ahya, we'll try to warn them, to protect them as far as we can."

"When?" He was grinning, amused at the will beneath her wide-eyed charm. "Better say if!"

The next setback came when he wanted to leave her behind.

"We'll be out there alone a good many months," he cautioned Padhai. "If, in fact, we do get back. A long way from any authority and under conditions that can test civilized behavior. We can't take a woman—"

"Lovato has to come."

"Not with us. She's too young. Too—well, appealing. I'm afraid of what might happen. Though I'm looking for decent men, they'll be vigorous and normal—and armed. You yourself could be in danger, sir."

"I?" Padhai's droop-lidded stare held icy indignation. "You assume too much. Lovato and I are not lovers." After a moment he added, not so sternly: "It's true we might have been, but we have sacrificed the physical—at least until our work is done."

The man was insane, Norlund thought. And most unfair to Leda.

"She's the linguist," he was explaining. "She has studied all the old records of contacts with the Ahya and all the known languages of their more primitive cousins. She has spent months on a chartered ship, tracing their migrations by radar and recording their own radio signals. Now she has programmed everything useful into a very expensive computer-translator. I couldn't run it. When we reach the sacred places, she will be the vital link to the higher mind we seek."

They had beaten him once more, when he wanted to make at least most of the trip by air.

"We can fly to the basin rim," he suggested. "Or anyhow to the lower plateau, beyond the glaciers. Saving months of time and a good deal of danger—"

"Danger? The danger is that we might alarm the Ahya." Hoarsely violent, Padhai cut him off. "We'll take no aircraft. Nothing fast or powerful. We go by sea to the glacier foot. Then by surface crawler."

"Which may be safer for us, after all." Leda gave him a quick, apologetic smile. "We've uncovered evidence enough that the Ahya don't like machinery near the basin. There are reliable reports that they have exploded themselves against aircraft that got too near."

His one small victory came when they tried to disarm the expedition.

"The Ahya fear weapons," Padhai announced. "With cause enough. We'll carry none."

"You don't know Medea," Norlund told him.

"We've been five years here."

"In the hotland colonies. They're pretty well defended. Even here in Chong, life seems safe enough. But there are human renegades and native predators—"

"Down on Hotside." Padhai scowled through his scar. "I believe the Banda Basin is too cold for most sorts of life."

"Could be." Norlund shrugged. "But we wear guns." He nodded at the holster that hung with his flaremask beside the office door. "I don't think you'll find anybody to take you to the basin without his own weapons."

"You're afraid?" Leda's dark eyes narrowed at his hanging gun. "Afraid of the Ahya?"

"I don't know the Ahya." He ignored her cutting tone. "I do know Medea. The effort to run an Earth-style socialism down in the hotlands has never worked well. Free spirits keep cutting out,

and some go wild. I wear a gun."

A bend in the canyon had hidden the splendor of the High Cascades before they met the foaming crest of the tide. Riding that rush of wild water down to the sea was an adventure in navigation that Norlund always enjoyed, but Padhai showed no zest for adventure.

"Come along." Curtly, the tall mystic turned his back on whirling currents and spray-drenched rocks and racing cliffs. "We've plans to make."

Down in his cabin, that persistent camphor reek was strong. Among the charts where he wanted to lay out their route to the glacier coast and over the ice and across the highlands to the Banda Basin, Norlund saw an odd little soot-blackened lamp and learned the secret of Padhai's odor. He burned tiny sticks of a precious wood he called camphor laurel, brought all the way from Earth.

"For meditation," Impatiently, he pushed the lamp aside. "A sacred incense. It nourishes the spirit."

When Norlund got back to the deck, they were out of the estuary. The suns had set, and the tall cliffs of Northcape were only a faint red line in Argo's glow. That night the captain caught the vast tidal eddy in the Ring Ocean that swept them south till that huge, dark-streaked, sullen disk was visibly higher; east through oily seas choked with vinegar-scented crimson weed; north again toward the Farside coast and on into the latitude of storms.

A late polar front struck them there. For three long Medean days—each a three-day week of human time—the savage weather kept them all below the deck. Norlund was afraid the crawlers might be lost, but when the storm was over he found them safe, frozen beneath half a meter of ice.

They steered out of the tidal eddy.

"A tricky thing," the captain told him. "It's an ugly coast, even here below the glacier bays, but we have to keep near enough to steer into the Chikamatsu fjord. Miss that, and we're caught in the Zaret bore. Whatever floats, you'll find in the Mushanga Sea, coming back across the falls."

Neatly, the old seaman brought it off. Catching the crest of a rising, weed-clotted flood, he steered them close to an ice-capped granite headland and into the fjord. The climbing tide carried them up its ice-carved channel and through the white-streaked narrows into a long calm lake, where tall ice-masses drifted in deep water green with rock flour.

"A glacial lake," the captain said. "As far as we can go." He dropped his voice, for Norlund alone. "You understand that we're to wait here only through the summer—we'll be making a coastal survey. We'll have to leave before the first winter freeze-up. If you aren't back by then—I'm afraid you'll never be."

He moored against a jutting rock where they could hoist the crawlers ashore. Heavy, steel-tracked machines, they were the model designed a hundred years ago by the first Northcape explorers. With loving skill, Nannuk had rebuilt these three from the best parts of a dozen he had found rusting in junkyards.

Climbing from that hazardous landing to the glacier, they followed a U-shaped valley the ice had cut in some wetter age, grinding over rockslides and wallowing through bogs still stiff with winter ice. Norlund and Floreal led the way at first, with Padhai and Leda in the second machine, the geologist and the nuke mechanic behind. The Seekers stalled their crawler in the first ice-bog, however, and Padhai refused to try to drive again when he learned that its power was nuclear. Floreal took the wheel, and Leda elected to ride with Norlund.

"I guess you think we're pretty stupid?" She looked sharply at him. "Hating the machines we must use."

He shrugged. "Anyhow, I'm glad to have you with me."

Here on the lower glacier, still below the retreating snowline, driving was difficult, especially with the three machines tied together against the dangers of cliffs and crevasses. They lurched and skidded over slick ice hummocks, splashed across torrents of meltwater, pitched and crunched through exposed boulder-beds. Yet, with only half his mind left for Leda, he enjoyed her childish delight in each new vista and her excited sense that they were attempting an ultimate adventure. Aware of his task, she kept silent through the times of stress. When smoother ice let him relax, she began—with a candor that surprised him—to talk about herself.

Her great-grandfather had been a *brujo* in a mountainous land called Chihuahua, a man of primitive wisdom in an age too late. When starvation came, his son had walked north across the deserts to a richer land where he became a poor farm worker. Her father had been a miner, her mother a follower of movements, of this great new cause and that, always meeting and writing and speaking, with no time to make a home. She herself had been a college student at a place called Tulsa when she first met Padhai—Dr. Aum.

A poor student, she said, confused about the meaning of life and uncertain what she wanted from it. After a sad love affair that left her still a virgin, she had tried to kill herself. Her roommate, a girl in the college Seeker Society, had stopped the blood and saved her life, had taken her to hear Dr. Aum when he came to lecture on the campus. When she learned about the future he promised, the mystic union with a universal mind, everything had changed.

After the lecture, she nerved herself to speak to him. He smiled and encouraged her. With meaning now in her life, she had earned Seeker scholarships and fellowships to study linguistics and computer science. She graduated into a research position in the Seeker Society, with the right to wear its symbol. And, finally, Dr. Aum had chosen her to come with him to Medea.

"A great man!" An awed devotion trembled in her voice. "Truly great. His goal is the noblest thing a man could dream of. If he does succeed—and I know he will—he'll be recognized as the greatest member of our race."

"You love him, don't you?"

"Love?" The word seemed to startle her. "We are united." Looking sharply at him, she added with a child's directness: "We've never had sex. Later, I hope. Now, he says, it might risk our mission." Her grave eyes studied him. "Perhaps you think we're foolish?"

Glad for a reason not to answer, he gripped the wheel and swung the crawler to avoid a half-concealed crevasse. Though he didn't want to get involved again, Leda had begun to haunt his imagination. If she hadn't been a Seeker—

She went back to Padhai's crawler when a late spring blizzard stopped them, so blinding that they dared not move. It howled through a long Medean day. Sealed and heated against it, the crawler was secure enough, but Norlund found himself dreaming too often of her, and he had to apologize for his abruptness with Floreal for Floreal's crude speculations about her relationship with Padhai.

When the wind died, they dug out of the drifts. Floreal went back to drive Padhai and Leda came back to Norlund, and they crept cautiously on. It was Darkday, the hazards hard to see, but the iceworld shone with an eerie loveliness. Half below the snow horizon, Argo was a dull crimson dome, three moons in line above it. Brighter than Argo, a nearly steady green aurora draped the northward sky, twin great white stars burning through it—the

major suns of Castor.

"Beautiful!" Leda whispered. "I'm glad to see it. Even if we never reach the Ahya, I'm glad we came."

When they reached open ice beyond the new snow, where driving was easier, she began asking Norlund about his own life. Though her innocent directness startled him at first, he felt delighted and found himself speaking freely about the artist and the dancer and the red-haired coed who had tried to baptize him.

"Olaf, you've led a troubled life." Her voice held a warmer sympathy than he thought he had earned. "I think you have lived too much for yourself. If you had followed some great cause, like Dr. Aum's, you would be happier."

"You sound like that redhead." He had grinned for a moment, but her intent concern turned him serious again. "I must follow what I believe. I doubt all miracles—including whatever wonders you expect from those dying firebags. But I do believe in mankind and a future for men here on Medea. When I can do something for Northcape, something to enlarge and secure our new niche here, I'm following the greatest cause I know."

"You'll change." Eyes violet again in that strange light, she smiled at him solemnly. "When you meet the Ahya."

"Perhaps." At such a moment, he couldn't quarrel with her. "Perhaps I will."

Week by week, they climbed the ice. Darkday, Dimday, Sunday. Darkday, Dimday, Sunday. The frigid air grew thinner until they had to pressurize the crawlers. One Darkday, when they had stopped for rest, Padhai found the first balloons. Elated, he passed his binoculars to Leda and then to Norlund.

The motionless air was savagely cold. Though the suns had set, Helle was flaring, its hidden fire blazing strangely on a banner of noctilucent cloud. He found the balloons above the cloud, high sunlit points clustered into a drifting globe.

"Show no lights." Though the balloons must have been a hundred kilometers away, Padhai hushed his raspy voice. "Use no radio or radar. We must not alarm them."

"We won't alarm them." Dork was reaching for the binoculars, tension crackling in his voice. "Not till we get closer."

The next Dimday, when they had crept off the last thin fringes of the ice and toiled up a long escarpment to reach the high plateau, where the thin and bitter winds were so dry that no snow fell, that tension became explosive. Dork had come to prospect for radioactives, but Padhai wanted no delay.

Norlund arranged an uneasy compromise. Dork could sleep in the rear crawler while Nannuk drove. He could detach the machine, while the others made their rest camps, for short side trips to read his detectors and take his samples. Padhai kept fretting that Dork might frighten the Ahya, but he found rich ore.

"This old monocline is rotten with radioactives," he reported to Norlund. "Pitchblende, carnotite, thorite!" He dropped his voice, squinting through his beard at Padhai's crawler. "Our problem now is to get back to Northcape with the news before the old fux kills us all."

III.

They set up the station on a boulder-scattered bench at the lip of the Banda Basin. Here, Argo never rose, though on a Darkday it lit the southwestern sky with a dim, crimson false dawn. Even on a Sunday, the sky was always clear and violet-black, the air calm but cruelly cold. Working outside the crawlers, they needed powerpacks to warm the thermal suits and feed fresh oxygen into their masks.

For concealment, Padhai—Dr. Aum—tried to arrange the crawlers and the pressure tents to blend among the boulders. To Dork, at least, his caution seemed excessive. When they were unfolding the big radio dish to pick up signals for Leda's computer, the geologist asked permission to use it to report their discoveries to the home office. Curtly, Padhai refused.

"Dr. Aum is working under a terrible strain." Leda tried to excuse him. "The Ahya have reason enough to be shy. If we frighten them away, that could spoil everything."

As shown on the orbital maps, the basin was a long, shallow oval three hundred kilometers across. The slope from the station was gradual and the floor looked flat as far as they could see, bare rock and gravel sifted here and there with frost.

"Carbon dioxide." Dork pointed across the basin to a far line of jagged peaks that stabbed the black horizon, pink in the pale, cold sunlight. "Frozen from the air, when you get high enough." He turned to Leda, as if hoping to interest her. "You see, Medea is a little egg-shaped. Deformed by Argo's gravity. The Farside cold pole is high. Beyond the limit for any sort of life."

"We aren't going any higher."

She turned quickly back to Padhai, who was searching for bal-

loons. By daylight, even with binoculars, they were hard to see. Excited when she picked up the first settling swarm, she showed them to Norlund, a tiny wheel of sunlit motes, spinning very slowly against the purple darkness.

"At first," she said, "we'll just listen. Observe whatever we can. Try to bridge the gaps in the translator program. If we get too eager, we could spoil our chance."

Seen through the quarter-meter telescope after the double sunset, the balloons were tiny globes swimming in velvet blackness, rosy and golden, changing hue in unison, flowing through patterned movements that seemed strangely precise and clearly purposeful. Watching them, Norlund began to feel a troubled awe. For the first time, his imagination opened to an oddly frightening possibility that the firebags had come here to do something more than just to die.

Suddenly curious, he asked permission to drive his crawler a few kilometers down the basin slope to look for dead balloons. Padhai refused, until Leda intervened. All their efforts spent on some kind of intellectual or spiritual contact, they seemed to care little about the anatomy of the Ahya, nothing about their physical processes.

"Go on," Padhai muttered at last. "But not beyond ten kilometers. Drive slow. Use minimum power. Keep radio silence. Show no lights."

Dork volunteered to go along, for whatever geological studies he could make in the dark. Men on Medea had always been advised against too much washing, lest the normal human body flora be replaced with Medean parasites, but it seemed to Norlund that the hairy geologist overdid that avoidance. In the heated crawler, he stank.

Nine kilometers down the slope, almost on the basin floor, they picked up what was left of half a dozen firebags: collapsed parchment sacs, dry and tiny, frozen brittle. A few fragments had an odd, bright surface sheen, like polished aluminum. Nothing about them told him how the Ahya could move so well against the wind, or thrive in this killing cold, or emit radio signals. When he brought them back, Leda didn't even want to see them.

"The old explorers made studies enough of dead balloons," she told him. "In their own crude way, they learned everything that doesn't matter. They concluded that all the balloon species depend chiefly on ultraviolet energy from the solar flares to generate their lifting hydrogen—which they can oxidize again, for their

vital energy. I think they start the long flight here with all the flesh and water they can carry. Along the way, the flares keep them fed. I don't care about the chemistry. What does matter is the fact that they do get here with life enough left for the grand dance we have come to study."

That study took too long for Dork. "Look at the fix we're in!" Afraid of Padhai, he fumed to Norlund. "Food supplies wouldn't carry us through the winter—not all of us, anyhow—and Nannuk isn't certain how long he can keep these old nukes going. We've got to get back to the ship before the freeze-up, which could be a problem, even now. With the lower glaciers thawing, the valleys we followed could be rivers. It's time to get out."

"Padhai's hard to hurry, and it's his trip."

"Not for long." Dork scowled through his mask. "Not for very long."

Padhai and Leda seemed, in fact, to be wasting no time. Desperately busy, they were taking turns day and night at their listening post and the computer. Norlund offered to help, but Padhai curtly turned him down.

"We're trying to learn a language," Leda explained. "The linguistic studies the first explorers made are too fragmentary to be very useful. Of course there's been no recent contact. Most of what we have to go on is the known dialects of the related species—generally very distantly related. There are similarities that seem to show some contact with the Ahya, but still we have to depend pretty much on linguistic intuition. And, of course, the computer-translator." She gave him a quizzical smile. "One machine I do understand!"

For the others, time dragged painfully. Nannuk serviced the nukes and repaired damaged crawler tracks. Floreal got himself gloriously drunk before Padhai discovered and wrecked the still he had set up in the kitchen tent. Dork kept begging for leave to borrow one crawler for a better survey of the plateau behind them until Padhai's blunt refusals drove him almost to explosion. He stumbled away, quivering with anger, slapping the bulge on his chest where the thermal fabric covered his gun.

"The arrogant idiot!" he muttered to Norland. "Thinks he's some sort of god!"

Leda had left her computer to follow anxiously.

"Be patient, please!" she begged him. "The Ahya are shy. We don't dare scare them. Please understand."

"I could understand you." He must have leered through his

goggles, because Norlund saw her flush. "But I've had too much of him."

Norlund tried hard to keep the peace, but as the short summer waned he grew uneasy. By his own calculations, it was already too late to be really certain they could get back across the ice in time to catch the ship.

"I know we're all in danger," Leda admitted when he spoke to her about it. "I've told Dr. Aum—but I have to agree with him that our goal is worth any risk." Her soft voice sank appealingly. "It's our last chance, Olaf. This trip has cost a lot. If anything goes wrong, we won't have funds to try again. With something so tremendous in our very reach, we can't give up. Mankind might never have another chance."

Suddenly, Dork's grumbling stopped. Norlund noticed him spending a good deal of time alone with Floreal in the cook tent or with Nannuk in the shop tent. They both denied even thinking of anything disloyal when he spoke to them, but he warned them carefully that the return journey would be very hazardous for a single crawler, or even for two. All three were needed, tied together, to get safely back across the glacier.

"Don't you fret." Nannuk's broad face held no expression. "We'll get home safe."

Padhai announced later that day that he and Lovato were ready at last to attempt contact. His angular, scar-sashed face was as hard to read as Nannuk's had been. Norlund couldn't guess whether his decision had come from hope or panic desperation.

The computer-translator and the communication gear were loaded on two crawlers for the descent to the sacred ground. Norlund and Dork came to drive them, leaving Floreal and the nuke mechanic to keep the station and make ready for the dash back across the ice.

They set out on a Dimday. With summer fading, the double sun was already low, but Helle was flaring again, three times brighter than its red dwarf twin. Goggled against its ultraviolet, Leda looked remote from him, oddly elfin, somehow almost sinister.

Yet he felt happy to be with her once more. The driving was easy, down the slopes that ancient glaciers had scoured and out across the frost-dusted flats. He tried to talk, hoping to recover the trust she had shown before, but he found her friendly candor gone.

"Sorry, Olaf." She gave him a brief and absent smile. "But this is the crisis. Certainly for Dr. Aum and me. The climax of our

lives. I guess that doesn't matter a lot to you, but we believe this is a turning point for all humanity—the moment when our race may achieve its destiny though a union with the universal mind, or may fall back to die unknown. I'm sorry not to talk, but I've too much to think about."

Beside him in the pilot dome—smelling remarkably better than Dork—she watched the dimming sky and a chart she had made, guiding him a hundred kilometers out across the basin floor to a rust-colored stretch of ice-smoothed sandstone that she said was the sacred place.

The balloons were high and scattered when they arrived, still feeding on the flare, she said. With the crawlers parked side by side, she set up her computer console in the space between them, wired to antennas and telescopes and directional mikes and reflector lamps and batteries of speakers mounted in bristling hardware thickets on the crawlers themselves.

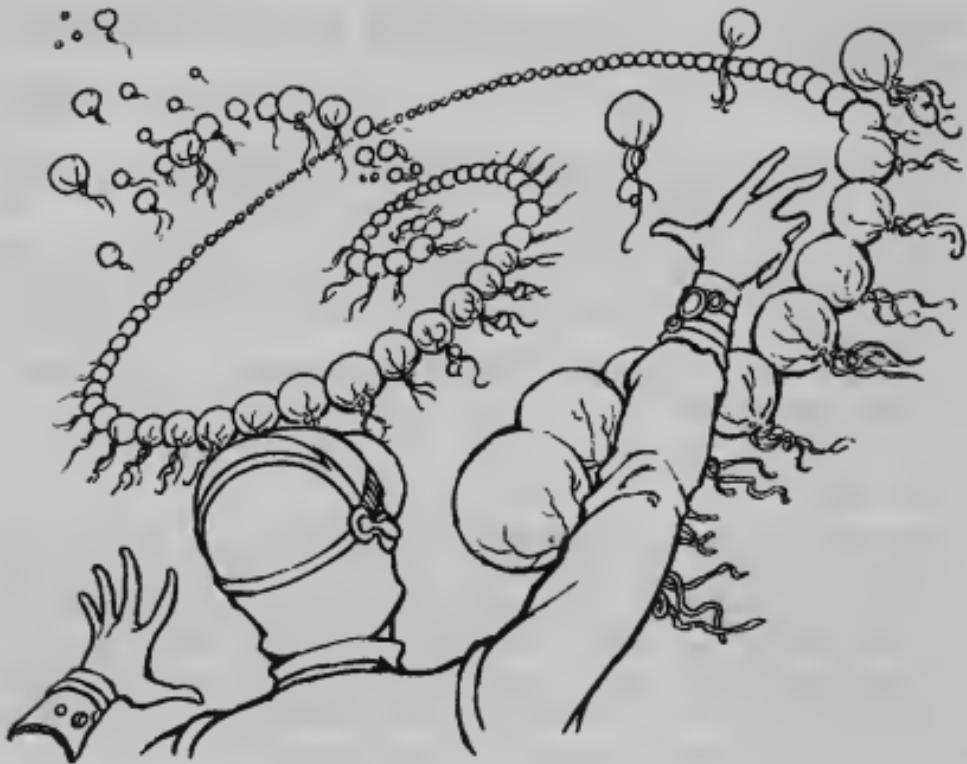
Before all that was ready, the flaring sun had set, leaving the basin faintly lit by the distant, white companion suns and the stabbing javelins of a crimson aurora. In that eerie dusk, the balloons began drifting back into a compact swarm high overhead. Norlund gave up his effort to count them—there were many hundreds, perhaps thousands.

Luminous, they were starlike points until Leda let him use the telescope. He saw them then as bright little globes trailing rope-like limbs, glowing with shifting shades of gold and rose and green. Sinking slowly lower, they began to space themselves into lines and wheels and vaster spheres, the changing colors flowing from one to one and group to group in a quickening harmony. Suddenly he could hear them, the sound of their siphons picked up by the mikes and amplified through the speakers on the crawlers.

They were singing!

Oddly, their blended song reminded him a children's choir he had heard in the hotlands long ago when that religious redhead had enticed him into her church. There were countless voices, clear and high and pure, all in unison. The cadences and rhythms were utterly strange, eerily pleasing but somehow disturbing.

Leda had snapped the speakers off, but still he could hear faint strains of the song. Soon, as the swarm kept descending, he could make out the globes without the telescope. The patterned clusters began merging into ever-larger clusters, wheeling, tilting, interweaving through intricate aerial dances that followed the



rhythms of their song.

Standing a little aside, staring at them through his bulging ruby goggles, Padhai began waving his binoculars in time, as if he had become a conductor of that uncanny symphony. His rasping breath was shallow and fast, almost, Norlund thought, as if he were nearing a sexual climax.

Leda, headphones over her hood, was bent intently over her computer console. Translating and recording the song, Norlund supposed. Perhaps analyzing the radio signals or other elements of which he was not even aware.

"Something new, Dr. Aum!" She was breathless with a triumphant excitement. "Something from outside. I can't quite read it yet, but the collective mind of the Ahya must be in touch—oh, no!"

Suddenly, that song had been cut off. The balloons all went abruptly dark. When their light came back, it was a ghostly blue. For another endless instant, they hung frozen. Then, all together, they darted upward, spreading apart as they fled into the dark.

"What's wrong?" Padhai was hoarsely accusing. "What frightened them?"

"Our machines, I'm afraid," Leda said. "We brought too many machines."

Scattering, the Ahya vanished like a puff of pale blue smoke. Except for the flying shafts of the red aurora and the twin diamond points of the far companion suns, the midnight sky was empty. A sudden wind blew out of the northeast, soundless but bitter, chilled air pouring down from the zone where carbon dioxide froze.

"So they're gone!" Dork's gritty voice held a savage satisfaction. "Now we can get out!"

IV.

Leda was already calling after the scattered balloons. Pink in the glow of a heater coil, her bare fingers danced across the console. Her voice rang into the mike, anxious, tight, and high. The beacon lights on the crawlers began to burn with turning color, beaming her call into the hushed Medean midnight. The banked speakers crackled and hummed, and suddenly bellowed their Ahyan song—a sound that gave Norlund gooseflesh.

Dork strode to face Padhai.

"Haven't we had enough?" he muttered. "Can't we quit this nonsense? While we have a chance to get out alive?"

The gaunt mystic brushed him silently aside and strode toward the translator, calling something to Leda.

"Damn you, listen!" Dork's shaking hand swept toward the bulge of his gun. "We've played your fuxy game too long. My own report on the ores in that plateau is worth a billion of your firebags. I demand—"

"Control this man," Padhai rapped at Norlund. "We've no time for him."

"Cool it, can't you?" He caught Dork's arm. "I know we should be starting back. But it's still Padhai's party. If he wins his gamble, it could be the biggest thing that ever happened on Medea. We've got to give him at least another day or two."

Dork stood speechless for a moment, panting with anger.

"Tomorrow's Darkday." With a stiff little nod, he squinted after Padhai through his frost-rimed beard. "I'll give him Darkday. But that will be all. When the suns come up, we're rolling the crawlers—with the rutty old fux or without him."

He slammed into the crawler he had driven, but Norlund stayed outside to watch. Leda was still beaming her multiplex appeal into the sky, but for a long time all he could see was the stars and the fluttering aurora and the false dawn of hidden Argo, a faint red glow beyond the southwest basin rim.

At last, however, through Leda's binoculars, he saw the Ahya returning. They came back cautiously alone, or in skittering little groups, their colors unsteady and pale. Gathering into a larger cluster at the dark zenith, still too high to be seen without aid, they hung uncertainly there.

Padhai conferred with Leda, their voices quick and brittle, and she fingered the console again. He saw a change in the rhythmic shift of color in the beacons on the crawlers, heard a change in the cadence of that brain-probing song, saw the big radio dish swing to sweep the swarm.

The balloons replied!

Though they were still far too high for him to hear whatever they sang, he saw them brighten and then begin to wax and wane in unison. Breathlessly intent, Leda stopped the booming song of her translator. When she touched a button on the console, the massed voices of the Ahya trilled and quavered faintly from a little speaker there.

"Dr. Aum, they're waiting!" Relief shook her voice. "They're still offended by our intrusion into this last sanctum, but at least they're willing to let us try to explain."

The explanation took a long time. Talking into the translator, Leda told her story of the Seekers and their search for a universal mind, almost in the words that Norlund remembered. Padhai took a turn, hollow-voiced and hoarse, shouting what Norlund thought must be his native Hindi. Much of the message, however, must have come from the memory banks of the computer itself, because the signals continued while the two Seekers stood silent, merely watching the sky.

The auroral curtains rippled, paler and brighter, redder and greener, reflecting Helle's recent flares. The hard, bright twin points of Castor crept along their slow circle around the celestial pole. The northeast wind grew colder, soundless but deadly.

Chilled through in spite of his power pack, Norlund climbed into his crawler to heat a meal and brew smoking sealeaf tea for Leda and Padhai. When he came back with his tray, however, they had no time for it.

The first compact cluster had grown, as more scattered groups

came back to join it. As it settled slowly back toward the sacred place, its member creatures began to shift positions in a strange and puzzling way.

Straight lines bent into whirling rings. Smaller rings meshed into the larger, to make a vast disk. It spun slowly, the balloons that formed it moving with a precision that looked almost mechanical. Bulging slowly, it became an enormous dish. A single balloon, glowing bright green, swam into place above it—and a stunned realization took Norlund's breath.

That oddly shifting flow had outlined the shape of a reflecting telescope, with the lone green individual at the point where its focus should be. He wanted Leda to confirm or deny his dazing intuition, but she and Padhai were still bent over the console, watching the flash and flow of symbols on its scope, listening to its little speaker, which still trilled the swift, mind-piercing music of the Ahya.

When he looked back into the sky, that outlined telescope was already coming apart, its glowing components separating into two new clusters, which swiftly formed two new telescopes, axes aimed at new points of the midnight sky.

Soon those two dissolved again, the bright balloons flowing again to make up something else. Sometimes there were three slowly spinning telescopes, sometimes one again. Often there were other shapes, whose function he dared not try to guess.

Once, for perhaps three minutes, there was a lofty form that caught his throat with the breath-stopping beauty of its shape and changing radiance. The bright spires pointing at the Castor twins made him think of the Terran cathedrals he had seen in films at Medeana, but most of it matched nothing in his imagination. After those few aching, dazing, endless minutes, it too flowed apart.

Groping for sense in what he saw, Norlund felt utterly perplexed and somewhat frightened. There was purpose visible in that slow celestial dance, but its goal lay beyond him. There was power in it—which might be benign, for all he knew, or might be unimaginably evil.

"They understand why we're here."

Leda had turned at last from the console. Shivering with cold, even in her powered suit, she accepted her container of tea with a grateful little smile.

"Now," she added, "they're considering a tougher question. What to do about us. A pretty complex issue. To put it in a way

you ought to understand, they're deciding whether the human race has earned admission to universal civilization."

That staggered him, even though he had half begun to anticipate something of the sort. Shivering to apprehensions colder than the silent northeast wind, he stared again at that strangely blazing celestial quadrille. Looking back at Leda, he tried to get his breath.

"There was—there was a metal-looking film." He leaned toward her, trying to read some expression behind her dark goggles. "On some of the fragments of dead firebags I picked up. Inflated, they were spheres. A partial metallic lining would make a natural spheric mirror—or I suppose the inner membrane could be stretched to control the focus. When I saw them forming into something like a radio telescope—"

His breath failed again.

"True." She nodded, pausing to sip from the hot container. Though he couldn't see her features, she seemed curiously calm. "They do have a radio link."

A shock of dismay shattered his awe.

"If they have to call the stars about us, we can't wait for any answer. Except from the other suns in the Castor system, a reply would take years. Maybe hundreds or thousands of years. We've no time—"

"I believe the Ahya have a different sense of time." Her mask lifted toward that intricate dance in the sky. "It was hard for me to grasp at first, because the individual balloons live no longer than we do. But here, for a time, each one is merged into a united mind that is eternal—or can be eternal, if we human beings can manage not to kill it."

He glanced uneasily at the crawler where he supposed Dork was asleep. "How long will they need? To decide—whatever they are trying to decide?"

"We don't know yet. We've been trying to communicate a sense of urgency. Without saying that we're afraid of violence from our own kind—we don't want to prejudice the verdict. But we can't yet be sure of anything."

With a baffled shrug, she glanced at the console.

"Even after all we've done, translation is still very largely an unsolved problem. Maybe unsolvable. We and they have too little in common—when you come to think about it, the human beings here have known the Ahya for several centuries without even beginning to guess what they are."

"Dork is going to make trouble." He frowned at the crawler. "Unless Padhai is ready to start back Sunday. Floreal and Nanuk will support him. I can't hope to hold them any longer. The fact is, we're already dangerously late."

"We'll see what they say."

"We can't wait a hundred years for an interstellar signal."

"I don't think they'll ask us to." He did glimpse her face as she handed back the empty tea container, worn, strained, half afraid yet half exultant, that bright bead gleaming against her nostril. "It's true they send and receive interstellar radio signals. Their first link, probably, to the great galactic mind, but I don't think it's very important to them now. We don't know enough to set any limits to what they can do. They can help us—if they decide we're worth it."

She returned to the console, while Padhai came to gulp his tea and wolf a few mouthfuls from the heated tray. When she called, he thrust the tray at Norlund and darted back to her. They listened silently, conferred in breathless whispers, fed some new message into the computer.

Norlund watched a long time, growing slowly colder. That unending minuet continued in the sky, dazzling with all its implications but still bewildering. He understood nothing that came from the Ahya, nothing that Leda sent back in reply. At last he climbed stiffly into his crawler, intending to watch from the pilot dome. Instead, warm again, he went to sleep.

He was never sure just what aroused him, but he started suddenly awake, haunted by a dim sense of trouble. He had been dreaming that he was back on the glacier, buried with Leda at the bottom of a deep crevasse. He had thought he heard a blizzard howling above them, and it took him a moment to recognize the singing of the Ahya.

His neck was stiff and his dry mouth foul. Struggling upright in the seat, he rubbed his gummy eyes and stared at the Ahya swarming low outside the dome. Distended parchment bubbles, three or four meters in diameter, snaky limbs dangling, siphons pulsing as they sang. A few had patches of long, coarse hair, but most were bald and glistening, flushed with their changing radiance.

Uncertain what to think, he stumbled outside. The bitter wind took his breath and blurred his eyes with tears. For a moment, fumbling clumsily to adjust his mask, he couldn't see anything. When he could breathe, he caught a sharp pungence, sweetish

and strange, the odor of the Ahya.

Padhai was now at the console, a thin stick figure in his yellow thermal suit, waving his lean arms and shouting hoarse-throated Hindi into the mike. The beacons on the crawlers seemed to flash and change with the cadences of his speech, and the same rhythms echoed in the song that pealed from the speakers.

When he found Leda, she was standing behind him on the crawler hood, arms lifted toward a roseate globe that hovered above her. Face tilted, she was singing directly to it, her tones as strange as the response from its own throbbing siphon.

Its live ropes were reaching for her. One brushed her, flexed its tip to touch her arms and kiss her singing lips, slid its sleek coils around her. He was jarred with a momentary fear that it might carry her away. But that would be impossible, of course; its lift would not support a human being. Anyhow, she was not alarmed. Her own reaching hands found another probing rope, stroked it gently.

"Lee—" Fear had dried his throat, but he had to know what was happening. "Leda?"

She heard him and paused in her song.

"We're okay, Olaf." She looked down for a moment, her mask half lifted, her face almost luminous in the glow of the sphere, that symbolic bead shining white. Her voice was tremulous with joy. "They're accepting us! It's wonder—"

She had looked across from him to the other crawler, and he saw her suddenly frozen in unbelieving shock.

A gun crashed.

Padhai's last shout died into a gasp of pain.

The nerve-probing chorus of the Ahya was cut off. All their motion stopped. Their changing hues stood still. In that stunned and breathless hush, he heard the clang of a crawler door and the grating of a boot on frozen gravel.

The gun slammed again, twice.

Whirling, he saw Dork crouched outside the crawler, wearing only the boots and his filthy underwear, red eyes squinting through the black tangle of his hair and beard. He gripped the gun with both bare hands, still aiming at Padhai.

"Got the crazy fux!"

He spat, spittle crackling in the deadly cold.

His gun swung toward Norlund.

Norlund was still in his exposure gear, his own gun slung under his arm but inside the heavy coverall—worn outside in this savage cold, it would have become too stiff to fire. With no time to reach it, he ducked back into the crawler.

Dork's bullet crashed against the open door and whined away into the dark. Backing away toward the driver's dome, he ripped at the closure, found the balanced mass of his own gun.

The bright metal frame of the doorway was outlined in the pale glow of the Ahya, a chill blue at first but slowly flowing into green. Pebbles grated. A shadow fell across the green. He caught Dork's unclean odor.

Their guns exploded together, deafening in the crawler. Something plucked at his pushed-up mask, but he was still alive. Trembling, head ringing, he snapped on the inside lights.

Dork lay limp in his dirty underwear, hairy face down, one bare fist still clutching the gun. Most of the back of his head was gone.

Outside, Padhai stood swaying beside the console, bleeding through his mask, gloved hands against his chest. Leda was darting to him. She threw her arms around him, trying to support his sagging weight. Before Norlund could reach them, the balloons came back to life.

Their colors turned scarlet. The sound of their siphons became a wailing threnody, the cadence strange and slow. They sank again, toward the stricken man. Their quick ropes wrapped him. A dozen in a cluster, they lifted him away from Leda.

He was still alive. Norlund saw his lean limbs moving, heard his choked and gasping voice. Standing beneath, spotted with his blood, Leda sang something after him—or tried to. Her quavering tones broke into a sob of agony. No reply came from the cluster, but another red-glowing balloon dropped to wind its ropes around her while its siphon breathed a soft response to her broken song.

Norlund stood watching, breathless and bewildered, knowing nothing else to do. After what seemed to him a long time, that last balloon let Leda go and soared away after the cluster that carried Padhai.

All the Ahya he could see had now begun to glow in slow unison again, brightening and darkening together, rose and pink and rose and scarlet, rose and pink and rose and scarlet. Their wailing faded as they climbed. Moving in a dazed and automatic way, Leda tried to pick up their voices on the directional mike,

but all she got was silence. When Norlund joined her, hoping somehow to help, they found that one of Dork's shots had gone into the computer, riddling its banked microchips with fragments of the exploding bullet.

With the binoculars, finally with the telescope, they followed the clustered globes that climbed with Padhai higher and higher into the greenish, unsteady aurora. Several times they thought they saw him moving, until suddenly the globes stopped their flow of color, glowing crimson. There was no further movement of the dark, stick-like frame until the living ropes unwound to let it fall.

The Ahya scattered, their radiance fading.

When Leda finally lost the last of them in the telescope, he helped her back into the crawler. She was shivering, drained of energy. He brewed hot tea for her and warmed a meal. Not yet ready for food, she sipped a little of the tea. He offered to drive the crawler to search for Padhai.

"No." Her husky tones were slow and dead, beyond sobs or tears. "Don't do that. He lies where he should. Where the Ahya die."

He put her into her bunk and broke radio silence to call the station. When Nannuk answered, he reported briefly that Padhai and Dork were dead. The balloons were gone and the mission was over. Seeming relieved with the news, Nannuk and Floriel agreed to bring their crawler to join him.

He was ready when they arrived, with Leda's now-useless communication gear stripped off the crawlers and the pressure seal on his own repaired where Dork's glancing bullet had torn it. He had taped his report on the tragedy for the firm and the Northcape Council. Dork's body he left lying on the icy gravel, beside the ruined computer and whatever else he thought might slow down their race back across the ice.

"Try to forgive him," he urged Leda.

Even after she had slept and eaten, she still looked pale and drained, hopelessly despondent.

"For your own sake," he said. "What he did does look absolutely evil. A crime against all humanity—if you and Padhai were really getting through to some higher intelligence. But he was afraid of the Ahya and afraid of Padhai. He must have panicked when he woke and found the creatures swarming all around us. Perhaps he thought they were attacking you. He didn't understand."

"What does it matter?" She shrugged, not looking at him, her

voice tired and dull. "Nothing matters now."

Riding with him in the lead machine, while they climbed out of the basin and crossed that bare plateau again, following a new route that looked more direct, she kept bleakly silent. When he tried to talk, she seemed not to hear.

"What will you do?" He put the question more than once. "Assuming we do get out alive?"

They were on the ice again, the three crawlers tied in line, before she tried to give him any answer.

"I don't know." She sat staring blankly at the white horizon. "Dork killed more than Dr. Aum. I'm afraid he killed the human future. After what they saw of us there in the basin, I don't think the Ahya will ever give us another chance."

For a long time, as they lurched and slid and bumped across the glacier, she said no more.

"But I do owe a debt to Dr. Aum." She sighed and shook her head. "I owe a report to the Seeker Society—but now there's really nothing to report."

"I think there is," he said. "What I saw convinced me that the Ahya have at least a radio link with intelligent life on the planets of other stars. That fact should excite any scientist."

"Maybe you're convinced." She watched without interest while he pulled the crawler out of a skid toward a gaping cleft in the ice. "But nobody else was there. All our solid evidence was in the computer. All we've learned since we arrived, about the language and the history of the Ahya. All they told us, there in the basin. All the evidence that they really do belong to a great galactic culture. With the computer gone—"

Her voice faded into listless silence as the second crawler slid toward that ice-pit in the wake of the first. He needed all his skill to ease the slack out of the connecting cable without a jerk that might snap it.

"Of course I must go back to Earth," she went on when she saw that he could listen again. "I'll tell the story, with whatever evidence I can put back together. Perhaps a few will believe. Perhaps the Society will find resources to mount another expedition."

She sat silent while he towed the following machines up a narrow and hazardous ridge, away from the fissure.

"Little enough promise in that," she muttered when they were on level ice again. "That would take a hundred years and more. By that time, your own descendants will be mining uranium and thorium on the plateau—maybe even in the sacred basin. The

Ahya will be gone. I don't know where, but I think they've had enough of us."

She said no more.

Laer, when they were crossing another stretch of smoother ice, he attacked her silence again, talking about his life in Northcape and his place in the engineering firm. She sat listening, with little show of interest. Somewhat clumsily, because of her bitter apathy and all the gulfs he felt between them, he led up to his own urgent question:

"Leda, why don't you stay? You may think I'm crude to ask you now—so soon—but I'll never have another chance. Won't you—marry me?"

He heard the tiny catch of her breath. She turned in the seat and leaned to kiss him, very gently at first but suddenly more firmly, arms tight around him.

"I like you, Olaf," she whispered. "Very much. I think perhaps we could be lovers."

"So?" Eagerness shook his voice. "You will?"

For a long time she said no more. Trembling, her arms squeezed again and let him go. She drew back slowly, watching gravely while he coaxed the crawler up a glassy hummock.

"Of course I can't." Her voice was dull and flat. "I owe too much to Dr. Aum. I—I could love you, Olaf. But I'll have to take the first ship to Earth and try to carry on his work. If I failed him, I could never respect myself."

Afraid to trust his voice, he kept silent.

The next Darkday, they were overtaken by an early north-easter, an air mass off the highlands where carbon dioxide froze. The wind was too dry for snow, but it froze meltwater to cover the summer-softened ice with a treacherous glaze. In spite of it, they kept grinding doggedly on until the storm had died and an ice-fog blinded them.

He halted the caravan. They were all bone-weary from their nearly sleepless race against the winter, but he asked Nannuk and Floreal to his crawler for a meal. Leda helped him serve it. She seemed cheerless and absent, though he could see her efforts to be gracious. When the tired men were gone, she murmured an apology and went back to her own bunk.

Tired enough himself, Norlund felt too tense for sleep. He went back to the driver's dome and sat there, thinking stray and aimless thoughts of his own unsatisfied life, of Dork and Padhai and the Ahya, of radio telescopes and universal intelligence, of immor-

tality and the mortal remains behind them on the basin floor, of Leda and himself.

The fog was shallow. It hid the ice, with all its chasms and glassy hazards, so that they dared not drive, but the Medean night was clear. He watched the dark-streaked ruby dome of Argo, still half below the horizon, floating on a pink sea of fog. He watched the green-bannered aurora and Castor's blazing major twins. Vaguely, he wondered what would happen to the Ahya when the uranium miners occupied their sacred places.

Drowsy at last, relaxed a little by the seeming peace and inhuman beauty of that deadly landscape, he got up to stretch himself and start back to his bunk. A muffled sound stopped him. The voice—of Padhai?

Shaken, he listened.

The murmer came again, from Leda's curtained bunk, just across the narrow passage from his own. It was Padhai's—but strangely changed, its strained hoarseness gone, its pitch a little higher, its intonations charged with the rhythms of the Ahya.

He stood there a moment on the deck, doubting his own senses, intending no violation of Leda's privacy but feeling too stunned to move. Heard her own hushed and sleepy murmur, surprised at first, then quickened with delight. He thought he heard Padhai again.

Shivering, as if the cold outside had somehow reached his heart, he turned silently back to the dome and waited a long time there, watching the fog rise and thicken to drown the dull dome of Argo in a cloud of blood, trying to believe he had somehow tricked himself, out of long fatigue and disappointed longing, with his own imagination.

He had dozed there, when something jolted him wide awake. The same changed voice, louder now but still indistinct. Speaking Hindi, perhaps. All he recognized was the name Lovato, trilled almost as if sung by an Ahya's siphon.

"Dr. Aum—must you go?" Leda's voice, clearer now and louder, as if they were a little apart, protesting sleepily. "So soon?"

"We must."

"If you must." Her protest had faded into drowsy contentment. "I'm so glad you could come back, Dr. Aum. I'm so very, very happy now."

In spite of himself, Norlund had stepped to the end of the narrow passage between the bunks. He stood there breathless, quivering from a terror colder than the ice. In the faint glow from the

dome, he thought he saw Leda's curtain flutter. Some tiny metal object clinked on the deck and rolled toward his feet.

That was all. Nothing moved the curtain again. There were no more voices. After a time he could hear Leda's soft and regular breathing. She was asleep. He caught his breath and bit his lip and shook himself, still trying to believe this was all his tired imagination. It was time for him to sleep.

He was starting toward his own bunk when his foot touched something that rolled and jingled softly on the deck. Bending, he saw a tiny gleam—and caught a scent that froze him, the strong camphor reek of Padhai's incense.

For a moment he couldn't move. Groggily, then, he picked up the gleaming thing and carried it back to the stronger light under the dome. It was Padhai's Seeker ring, the white little platinum globe mounted on a dull black ground. He sat a long time staring at it, until at last he shrugged and walked stiffly back to his bunk. Whatever all this meant, he had to get some sleep.

Leda woke him, calling cheerily through the curtain. A brisk south wind had swept away the fog. It was a brilliant Sunday morning, the twin suns rising over a diamond blaze of frost. Nanuk and Floreal had already come across from the other crawlers, and she had breakfast waiting.

The change in her astonished him. Her step had quickened. Color had come back to her drawn face and light to her hollowed eyes. In hopeful high spirits, she was chatting with the other men about the weather and their route when he joined them in the narrow forward compartment, and she met him with a smile that set his heart to hammering.

Sitting with him as they drove on, she seemed relaxed and happy, interested in everything: in the tilt of Medea's axis that caused the slight rise and fall of Argo in the south, in the flow of the glacier, in the art of driving on ice. Her dread of nuclear power somehow gone, she even volunteered to relieve him at the wheel if he could teach her a little more.

"I do forgive Dork," She broke a silence, suddenly. "A pitiable man. I understand him now."

Still bewildered by the change in her, he showed her the platinum ring.

"Oh!" With that soft little cry of surprise and delight, she took it from his hand. "It was lost."

"It was dropped on the deck last night." The chill of his troubled midnight wonder shook his voice again. "How—how did it

get here?"

"Please don't ask." Eyes violet and grave, she looked hard at him. "I'm afraid you wouldn't believe." She tried the ring on her middle finger. "This was Dr. Aum's. I'm very glad to have it."

He muttered uncomfortably, "I don't know what to believe."

"Perhaps you'll learn." Her face was enigmatic when he could glance at her again, perhaps a little sad. "Though it won't be easy for you."

Reluctantly, he gave up his questions.

As if awakened from a long nightmare, she said no more about Dork or the death of Dr. Aum. Instead, she began recalling little incidents from her childhood back on Earth and asking more about Northcape and Chong, surprising him with her assurance that they were going to win their race to the ship.

She asked to try the crawler's radio. Though interference from the aurora limited its sending range, the next Darkday she reached the ship. The glacial lake had begun to freeze, the captain told her, but the tides were still breaking the ice. The last safe current was already gone, and he would have to catch the next weekly tide. She told him that would be too soon and persuaded him at last to wait one week longer.

They had to leave Nannuk's crawler on the glacier, when a broken cable let it slide into a deep crevasse. With Nannuk himself safely rescued, they came pitching and clanging down that last glacial valley on the last day of that last week, plowing through the winter-thickened ice-bogs and skidding over slopes glazed with frozen meltwater.

Forced away from the rock where they had moored, the survey ship lay out in a narrowed channel of open water. Abandoning the ice-caked crawlers, they scrambled across the floes to get aboard in time for the captain to catch the ebbing tide. It swept them down the ice-clotted fjord. Across the slack Zaret bore, the ship steered into the tidal eddy to ride it south and west along the Northcape coast, just ahead of winter.

Norlund and Leda spent those last fine autumn days on deck, basking in Argo's increasing heat, leaning on the rail to watch the bright-winged water creatures that kited away from the ship, staring like children in their renewed wonder at the red hydrogen plumes that arched above the double sunsets. Though their talk was carefully kept to inconsequential things, he thought he had never been so happy.

Too soon, however, they were riding another tide up the broad

estuary of the Black Canyon River toward the city of Chong. Leda was delighted again with the awesome cliffs the High Cascades had carved, excited again with their first far glimpse of the falls themselves; but he had fallen into a dark depression.

"Olaf?"

They were standing at the rail, watching for the mirror cones of Chong. Her flare goggles were pushed up and her intense eyes studied him, nearly black and very grave.

"You mustn't be so sad. Not when I'm so very happy."

He wanted to say that she would be gone too soon, that Earth was too far for her to return while he was still alive, but his throat hurt and he didn't trust his voice.

"I told you I was going home." Her low voice seemed to come from far away, and he wasn't sure he understood. "Now I want to stay on Medea."

"With—" Her quick impulsive kiss took his breath and checked his unbelieving question. "With me?"

"To wait."

A crewman was busy coiling a cable near them. Her warm hand on his, she turned back to watch the High Cascades, a copper-tinted flood crashing down into blazing spray all around the north horizon. He thought she meant that she was going to wait for funds from the Seekers back on Earth to help her mount another effort to reach the mind of the Ahya, but that prospect was so dismal for her that he didn't try to put it into words. With the balloons frightened and scattered, their holy places desecrated, no new expedition could accomplish anything.

"This is hard for me to say." The crewman had gone on. Moving closer to him, she was still oddly hesitant. Her eyes, he saw, were bright with tears. "Because I'm still afraid you won't believe."

Waiting, he put his arm around her. He could feel her fast, uneven breathing.

"Dr. Aum is dead." He bent to catch her hushed and breathless whisper. "His former body is. But he—we did reach the Ahya. Through them, we touched the cosmic union they have found. Long enough to change everything—though I didn't know it then. He was taken into their eternal being. I'm waiting now for a greater person than he was, coming to continue what he began.

"His child!"

A shudder swept him, when he recalled that altered voice murmuring in the dark and that lingering reek of camphor and the platinum ring that had fallen from her bed.

"But more than just his son—or his daughter, perhaps." Stronger now, her voice had a momentary note of pleasant speculation. "A child of the Ahya, too. A child of the whole galaxy. Think of that!"

Not knowing what to think, he stood silent.

"Olaf, please believe!" Her quivering hand closed on his. "I wish I could tell you the sense I have of what it means—the certainty! Our child will grow up to be the link we came to search for, the bridge I thought we had lost, between mankind and the mind of the Ahya. He—or she—will lead us toward the noble goal the old astronauts were seeking when they first set out across space to Medea."

Dazed, he shook his head.

"I was afraid you couldn't believe." Anxiously, her wet eyes scanned him. "I knew you would want to know all about the mechanics of it, but the great mind we touched is at least a different sort of mechanism. Which doesn't mean that you would have to call it supernatural. It's older and greater than the galaxy, growing to fill the whole universe, with powers greater than we ever imagined—but just as natural as your turbines are. A more splendid element of nature!"

"Now can't you believe?"

Shivering again, he drew her close against him.

"Leda—" He had to catch his breath. "I do believe."

His own eyes were blurred with tears, but he felt her slipping something on his finger, something gleaming brightly white: the ring that had been Padhai's, when he could see it, with the polished platinum sphere that stood for universal union.



LETTERS

Dear Isaac Asimov:

Since so many of your readers seem to be interested in writing science fiction, I thought I would write and inform them that the *Bulletin of the Science Fiction Writers of America* is available to nonmembers.

Besides regular columns about science fiction writing by Frederik Pohl, Mike Hodel, Greg Bear, and Norman Spinrad, we have articles on writing by many of the best authors in the SF field.

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Membership in the Science Fiction Writers of America, either as an Active or an Associate, is available to people who have sold science fiction stories to professional markets. To apply, send the details of your most recent sale (story title, length, approximate date of sale, and the market to which sold) to SFWA's Treasurer, who is Joan Hunter Holly, 923 West Shiawassee, Lansing MI 48915. It would make it easier for her if you would include a self-addressed, stamped, business-size envelope with your inquiry.—George H. Scithers

Dear Mr. Scithers:

As a college English teacher, I read Jack Williamson's article (Mar.-Apr. 1978) with great interest, especially since it was his *Teaching SF* that encouraged me to initiate such a course at my own university (Hofstra in Hempstead, New York).

Overlooking the corollary to his argument—i.e., will science fiction kill academe? (I'm sure it won't!)—I'd nevertheless like to take a more positive attitude regarding the advantages—and pleasures—of teaching critical courses on SF works. For one thing, as Williamson points out, it's obviously a subject that will excite even the non-readers on campus (and their name is Legion). A typical upper-level SF course draws students from the en-

tire university, not just from the English department. What's even more interesting—and ultimately most advantageous to "legitimizing" SF—is that many (granted, not all, but many) SF works *do* stand up to critical analyses. What a pleasure it is to note the careful use of light imagery in "The Nine Billion Names of God"—just before the stars go out forever; what fun it is to juxtapose it against "Nightfall" (yes, yes, by the very same Good Doctor whom we all venerate). Students have even suggested that Arthur C. Clarke must have written his story with "Nightfall" in mind. A work with notably weak human characterization (such as Weinbaum's "A Martian Odyssey") can nevertheless make an interesting statement on man's inability to communicate with his own species while simultaneously establishing a rapport with an alien civilization. All the above stories can be found, of course, in *The Science Fiction Hall of Fame*, Vol. 1, which is only one example of a growing selection of SF collections worthy of intensive analysis.

And finally, when Dr. Williamson complains that some writers have been too eager to please critics, too anxious to make their writing "literary" (possibly to consciously attract the college market), I say that if an SF writer becomes aware that his work will be treated seriously, if he knows he won't be sneered at in literary circles, this knowledge might just help rather than hinder him, might encourage him to write decent dialogue, delineate real characters, in short, work just a little harder at his craft. Is it not just possible then that academia might save SF from itself, might help it gain acceptance as the thoroughly valid, intelligent literature of ideas that we fans have always known it to be—assuming, of course, that we wish to share it at all!

Sincerely,

(Mrs.) Barbara Bengels
Adjunct Assistant Professor
of English, Hofstra University

Ah, that we had professors like this when I was young! Still, the writers I know don't skimp on the work. Pushing for one's own approval is the best driving force there is.—Isaac Asimov

Dear Mr. Scithers & Dr. Asimov,

The May-June issue contained, in my opinion, the best set of stories to date. Not a dog in the whole bunch!

"Lipidleggin'" was my personal favorite. A clever extrapolation and smooth, tight writing made for an excellent story. Dr. Wilson's clean, understated style reminds me of Heinlein at his best.

"Born Again" was great. Vampires are, after all, interesting critters; it was nice to see someone attempt to transplant them from the realm of fantasy into the realm of science fiction.

I particularly liked "The Man Who Took the Fifth." It dealt with a serious matter—the problems old people face when walking the streets—yet made its point without becoming heavy-handed.

"The Last Full Measure" was another fine selection, a strikingly original example of that sub-genre that can only be called "unclassifiable."

"Polly Plus" was a trifle predictable. By the top of page 42, I had correctly guessed that Willy was some sort of alien. Mr. Garrett didn't seem to bring any startling freshness to a used and re-used theme. Still, it wasn't a bad read.

"Pièce de Résistance" had some solid ideas behind it, but was a little too slow-moving to really grab me.

"A Choice of Weapons." Ah-hem. I would rate this pun a 5 on the SGU (Standard Groan Units) scale. This scale is based on the principle that a good pun is one which produces groans. One which elicits *loud* groans from everyone present would have an SGU rating of 10. Not a groan to be heard, it gets a 0. Thus, this particular "thing" would fall squarely in the middle.

I really like the limericks you toss in at various points in the mag. For one thing, they prove that *IA'sfm* hasn't fallen into the common trap of taking itself too seriously.

Peace,

Jim Pierce
Batesville AR

Ah, nostalgia. Back in 1938, I wrote letters exactly like this. They weren't written to IA'sfm, however.—Isaac Asimov

Dear Eds:

I see your mag consistently outselling the others, and distribution seems fine on Milwaukee's Eastside—(U.W.M., drug stores, but not grocery chains, so far)—maybe the Good Doctor's name, plus the BNA's and interesting covers (good color) with a hint of

The Golden Age in theme will keep the mags from dying (a shot of 'new' blood helps everyone concerned).

You're new—yet your combined years of experience equal a formula reminiscent of the 50s. Fantasy for one (de Camp among others). Fantasy covers—somewhat whimsical, but not absurd.

The layout is clean, spacious, and easy to read. I commend you on using Alex Schomburg's illos throughout, not squeezing every inch for ads or continuations. He imparts the visual sense of wonder in his precise and wonderful imaginings; important to *reader stimulation*. I recall his work in *Startling*, *Thrilling Wonder* and *Astounding*. To me, his work is Science Fiction personified—if that's a correct usage of the word. By all means keep using them. Good work!

Eugene T. Caldwell
Milwaukee WI

For some reason it is harder to get a general consensus on artwork than on stories. We appreciate the good words here.—Isaac Asimov

Dear George,

I was most impressed with Jack Williamson's article in the Spring issue, "Will Academe Kill Science Fiction?"

As a freelance writer and longtime reader of SF, I found myself in the awkward position of working on the design of a pilot course for an advanced SF class at my alma mater, a large high school here in South Florida, about a year ago.

The school's curriculum had for the previous two years offered a "regular" SF course, a semester class with a low difficulty rating designed for those students who were definitely interested in SF as literature, but not interested enough to take on the workload of an advanced course.

The course we designed, however, incorporated both aspects. That is, aside from reading various assigned works, the students were encouraged (required) to select other works for analysis, critical essays, broad comparisons, etc. Writing was of course encouraged, not only in the form of original works of fiction, but also two quarterly term papers on some subject pertaining to the field.

We also worked out a program whereby SF as mass media could

be explored. A local television station loaned us various *Star Trek* and *Twilight Zone* episodes, as well as some movie trailers; and we were fortunate to have several guest speakers during the semester, including Gary D. Douglass and myself.

As an advanced course, our SF class on the whole is quite similar in many respects to some of the other honors courses, such as Shakespeare and Nobel Prize authors, but certainly much more exciting.

However, I believe that, while offering SF for credit is not such a bad idea, care should be taken on the part of those teaching the course not to take for granted the overall "wonder" of the field. As Dr. Williamson pointed out, many were and are attracted by less sophisticated forms of SF, such as *Star Trek*, *Star Wars*, Saturday morning cartoons, comic books, etc.

By hitting potentially avid readers and writers of SF over the head with the "real" definition of the genre and its philosophical implications (later, later), one might find those bright and intuitive young lads signing on just for an extra half credit in Language Arts, rather than a unique and wonderful learning experience.

James Lynch
Lake Worth FL

Fascinating! The only trouble is that I have this horrid thought that if I were to take an advanced course in SF, I would flunk.—

Isaac Asimov

Gentlemen:

Forget about a subscription renewal to *IA'sfm!* Everyone around your magazine pays court and homage to John Campbell as a superb editor of *Astounding Stories*, *Astounding Science Fiction*, and *Analog*; as a leader, counselor, forerunner, as a guiding light, as the man who built up his magazines to the tops in the SF field. Also his magazines were tops in circulation. Though you all and your staff talk big, you certainly flop when you accept such trash as "The Barbie Murders." Yourselves and Ben Bova are of a kind with 15-year-old, sex-related ideas for stories—no thank you. Give me stories of the John Campbell quality.

I have read SF and John Campbell's magazines since 1930 and have been familiar with them *all*, but little quality is left. I am now through with the art form as it is now treated. As they say in

sports—you are taking cheap shots when your Mr. Davis, Mr. Scithers, and Dr. Asimov approve such stuff.

Yours,

W. J. McCauley
Salinas CA

Alas, times change. The Calendar tells us that it is no longer 1938. You may leave us but that still won't make it 1938.—Isaac Asimov

Dear Mr. Scithers,

I was quite impressed with Vol. 2, No. 2 of the magazine; three things made a strong impression on me. The format itself is flexible, not constraining to the stories and subjects, yet is organized and readable. The stories themselves are entertaining and (for the most part) well-written, yet almost all seem to be cast in a similar mold—all begin generally the same way, and all have that "twist ending" that Dr. Asimov's own stories (and thus, I'm sure, his policies) contain. And third . . . the entire magazine seems to reach out to new writers, encouraging contributions.

Sincerely,

Alexander Mark Zutkoff
Timonium MD

Under oath, if you like, I will affirm that neither George nor I have any twist-ending policy. We want stories that are well-written, interesting, and not morbid, but we don't apply strait-jackets.—Isaac Asimov

Dear People,

I particularly enjoy the writer/reader relationship in science fiction. Isn't it great that in a field where many writers seem intent on preventing the average reader from squeezing even a drop of understanding from a work of fiction, science fiction writers and editors encourage rapport and communication with their readers. Don't ever lose this quality in your magazine!

My view of the future, for what it is worth, is positive. To me, science fiction does too much warning, serving too much as the prophet of doom. There is an important message in work of this kind, but I like to envision a world made up of people not so dif-

ferent from the people who exist today. There are quirks and qualities in man that as a writer I would not presume to change! These qualities combined with the possibilities of technology make the future exciting for me.

Best regards,

Tom Swan
Lititz PA

Rapport-with-readers suits us fine. George and I have been readers too long to forget. As for doom prophecies, remember that it's the dramatic that attracts a writer and the prophecy at least tells us what to try to avoid.—Isaac Asimov

Dear George,

I just received my first issue of *IA'sfm*. When I looked at the table of contents for your March-April edition I was a bit skeptical about the reading that would follow because I never heard of any of the authors before, excluding Brian W. Aldiss. Leaving my pessimistic side behind me I read on and was thoroughly entertained. The stories and the art were the best I have ever viewed in a science fiction magazine.

I especially enjoyed "Darkside" by Gary D. McClellan. It is the first time I have ever encountered a science fiction story about rock climbing. I myself am a rock rat, as the author put it. The funniest story in this edition had to be "Roboroots" by Jay A. Parry.

Mark Kelly
Philadelphia PA

Remember, every author you have heard of was once unheard of. What counts is the story.—Isaac Asimov

Dear Mr. Scithers:

"Heal the Sick, Raise the Dead" was an exceptionally good story, I thought. If this wasn't a fluke, I wonder how Mr. Peel has kept from selling a story until now, unless he's never tried. Congrats, Mr. Peel.

The only story I thought was really bad (it stunk, if you will), was "Roboroots." I couldn't really say why I hated it, because there are two reasons, or a combination of the two. First, I

thought the story was badly written. Second, which might be called prejudiced, is that I despise Robot stories. (No offense to Dr. Asimov, of course, he remains one of the genre's best authors in my book, and in most anyone else's too.)

David Lents
Clarksville Mo

I'm not offended, merely astonished. How can anyone dislike anything as cute and cuddly as a robot?—Isaac Asimov

Dear Mr. Scithers,

Who in the world is George Scithers? And how do you pronounce Scithers? Whoever you are, you certainly have a talent for selecting science fiction stories of remarkable excellence.

Three cheers for your policy of encouraging new writers. (You'll be receiving a story from me shortly.)

And tell Dr. Asimov to hush up those remarks concerning his advanced age. It's depressing. I intend to read new Asimov stories for at least another 30 years. Hopefully more.

Congratulations. Your magazine's a real winner.

Gene Chambers
Rensselaer IN

I'll tell you who George Scithers is; he's the best darned editor in science fiction, that's who he is! And his name is pronounced "SITH-erz."—Isaac Asimov

Dear Dr. Asimov:

After reading several issues of *IAsfm*, I have come to wonder why you do not instead call it "Isaac Asimov's Magazine of Science Fiction." Given your superlatively renowned ego, a far more appropriate acronym would seem to be *IAMSF*.

Non-seriously,

Clifton Cooper
Vista CA

As a matter of fact, my esteemed colleague, Lester del Rey, has already made that very suggestion; but then, who ever listens to Lester?—Isaac Asimov

Dear Sirs,

I have noticed that most, if not all, of the letters published in your magazine to date have been from the North American continent. I have therefore decided to redress the balance.

I have read all the magazines so far, and I think that they are getting better all the time. The March/April 1978 edition was the best so far. Keep it up.

Also, I have had no trouble at all getting my copy of the magazines on time. Your European distribution must be excellent.

Yours faithfully,

Richard Bavin
Aldershot, Hampshire, England

We are delighted to hear from the land beyond the sea and we shall indeed continue to try to do our best, both editorially and distributionally.—Isaac Asimov

GOOD NEWS FROM THE PUBLISHER!

Because of readers' comments on our cigarette ad inserts, I've decided to eliminate them from the magazine. In addition, subscription copies will now be mailed in wrappers, in order to avoid in-transit damage.—Joel Davis

Letters to the editor (address them, please, to us at Box 13116, Philadelphia PA 19101; letters on subscription matters go to an entirely different address) are always needed—not only to tell us what you do and (perish forbid!) don't like about the editorial content, but also to tell us how well the distribution system is getting copies to the newsstands and mailboxes. Letters are read by the editor, by the publisher, and by the editorial director—and where appropriate by the production director, the newsstand circulation director, or the subscription circulation director. Always, we try to fix what you don't like and to do more of what you like.—George H Scithers



THE SF CONVENTIONAL CALENDAR

by Erwin S. Strauss

We're moving into a slower season for conventions now, but there are still quite a few. Call (between 10 AM & 10 PM, not collect) a con in your area today, and plan to spend a weekend with fellow SF fans and authors. If you have problems contacting any con, call me and leave a message on my machine—I'll call you back. Call 10 AM to 10 PM *only*. For a longer, later list—and a sample of SF folksongs—send an addressed, stamped long envelope to me at 10015 Greenbelt Rd. #101, Seabrook, MD 20801. Drop me a line if you're planning to put on a con yourself, too. Look for me at cons behind the iridescent badge reading "Filthy Pierre."

Pioneer I, Oct. 21-22, 1978, Springfield MA. (413) 736-1684

Convulsion 2, Oct. 21-23, Richmond VA. Karl Edward Wagner, Kelly Freas, Steve Stiles. Pat Kelly's 3rd annual con. (703) 591-2093

PhilCon, Oct. 27-29, 1978, Philadelphia PA. Michael Bishop. Oldest con is now in new hotel. Write: 210 Londonderry Lane, Darby PA 19023

LosCon 5, Nov. 3-5; Los Angeles CA. Robert Bloch. (213) 792-0266

ConClave 3, Nov. 3-5. Sturgeon. Write: 117 Godison, Ypsilanti MI

ChattaCon 4, Jan. 5-7, 1979, Chattanooga TN. Alan Dean Foster, and leading Mid-South con fan Cliff Amos. Masquerade. (615) 892-5127

Roc*Kon 3, Feb. 9-11, Little Rock AR. Kelly Freas, Shelby Bush III. For information, write: Box 9911, Little Rock AR 72219

Boskone 16, Feb. 16-18, Boston MA. Frank ("Dune") Herbert. One of the big East Coast cons. Write: Box G, MIT PO, Cambridge MA 02139

CoastCon, March 9-11, Biloxi MS. George R. R. Martin, Meade Frierson III. Motel rooms \$12 a night—great buy. (601) 374-2933

NorWesCon II, March 23-25, Seattle WA. Phil Farmer. (206) 822-9129

LunaCon, March 30-April 1, New York, NY. Ron Goulart, Gahan Wilson. Dowager queen of East Coast cons back in Big Apple. (212) 252-9759

WesterCon 32, July 4th weekend, San Francisco CA. Richard Lupoff, Bruce Pelz. The traditional centerpiece of the West Coast con circuit. Write: 195 Alhambra #9, San Francisco CA 94123

DeepSouthCon, July 20-22, New Orleans LA. R. A. Lafferty, Jerry Page. The rotating Southern con, on a new weekend. (504) 861-2602

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NorthAmeriCon, Aug. 30-Sept. 3, Louisville KY. Con for those who can't make it to SeaCon—or for jet-setters returning. Fred Pohl, Lester Del Rey, and some guy named Scithers.... (502) 636-5340

NovaCon 9 (West), Nov. 2-4, Albany NY. "The first British con in the US." Free admission with UK or Eire passport. Robert ("Bosh") Shaw and Wilson Arthur ("Bhob") Tucker. (518) 783-7673

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